

Annotations to Karl Marx's 'Capital'

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Preface to the Annotations

These Annotations discuss Marx's *Capital* paragraph by paragraph and, if necessary, sentence by sentence. They consist of a new translation of Marx's text, printed in parallel with the German, interspersed with comments. The comments try to make the logical development of Marx's argument explicit, including those steps which Marx himself only indicated through his terminology, or which he took for granted and did not think he had to explain, or about which Marx was silent at this point for other reasons.

This interpretation of Marx is indebted to Critical Realism, a philosophical current founded by Roy Bhaskar which, in my view, is the best systematic development of Marx's methodology available today. Critical Realism arose from modern philosophical critiques of positivism, and furnishes a derivation from first principles of many themes that are present in Marx's reasoning, but which are rarely explained by Marx himself.

Marx himself used a method inspired by Hegel. He aimed to sink his thoughts into the subject-matter so deeply that he could see the subject-matter not from the point of view of a consciousness alien to the subject-matter but through the subject-matter's own logic. Since Marx's subject-matter is capitalism, this can be justified by the fact that capitalism is the society which we reproduce every day with our actions; therefore an intelligent introspection of our own acts should help us understand the structure of this society. Critical realism does not require this immersion; its frame of reference creates a scaffolding which allows even someone living in a non-capitalist society to understand the structure of capitalism. This view independent of capitalism makes all those things explicit which Marx himself, in his state of immersion, left implicit—but which nevertheless directed his thinking.

The explanations given in these Annotations are not always identical to Marx's own explanations but I hope to show that they can nevertheless make sense of Marx's development at every step. I see my work not as a re-interpretation of Marx in Critical Realist terms, but I am using Critical Realism to make Marx's intuitions and thought processes more widely accessible. It is a more pedestrian approach than Marx's own, it is walking up the stairs of a scaffolding rather than climbing the rock itself. I hope this scaffolding can be traveled by many and therefore allows discussion at a level which was formerly impossible.

In keeping with their purpose making Marx more accessible, these Annotations are written for everyone, whether lay person or expert, who is interested in understanding Marx's *Capital*. Marx's *Capital* is an important but difficult philosophical work. A modern reader who is trying to work through it alone is likely to miss important aspects of it. The reading of *Capital* must be taught. But the efforts of understanding how Marx argues in *Capital*, pay off because they enable the reader to also better understand capitalist society itself.

These Annotations are freely available as pdf files. In their electronic version they contain thousands of live links which enable the reader to quickly switch from one part of the text to related passages elsewhere. They are part of a collection of pdf files with annotations to other economic writings of Marx. The comparison of different versions of the same argument is often useful for a better understanding of the argument itself. This collection also includes a glossary, which gives an overview how certain philosophical terms are used by Marx, and which I hope will help in the difficult task of translating Marx. Again, this glossary takes

full advantage of the capability of the pdf readers to follow live links.

A special version of these Annotations was used as textbook for an on-line class which I taught at the University of Utah between 1995 and my retirement in 2015. This class edition uses excerpts of the full text. The study questions come from teaching this class. I owe thanks to the students in these classes, whose insights and also misunderstandings have helped me refine my interpretation of Marx's text.

Page references to *Capital* refer to the Vintage resp. Penguin edition [Mar76]. The German text also displays the corresponding page number in volume 23 of the Marx Engels Werke (MEW) [Mar62], which is a reprint of the Fourth German edition. Karl Dietz Verlag gave me kind permission to use the page numbers and the translations of the footnotes from MEW. Along with the page numbers, also a count of the paragraphs is given. *Capital I*, 82:3/o means: the third paragraph starting on p. 164 in the Vintage edition. The "/o" indicates that this paragraph is going over to the next page.

Grundrisse, 31:2/o denotes a passage in *Grundrisse*, Marx's first draft of *Capital*, which is reproduced in Volumes 28 and 29 of the *Marx Engels Collected Works* [Mar86] and [Mar87b], and which is also separately available in a Vintage/Penguin edition [Mar73]. This latter page number is the one used here, and the German page numbers come from [Mar74]. I also often refer to Marx's *Contribution to the Critique of Political Economy*, which is an earlier published version of the first part of *Capital I*. The English page numbers come from Volume 29 of the *Collected Works* [Mar87b], and the German page numbers from [Mar71].

Here are some of the other sources used: Marx's manuscript *Results of the Immediate Process of Production* is referred to in the translation included as appendix to the Vintage edition of *Capital I* [Mar76]. Sometimes I also refer to the French translation of *Capital*, which was made under Marx's close supervision, and about which Marx commented in the preface of *Capital I* that certain passages were clearer than the German. Page numbers for the French edition are taken from the MEGA edition [Mar89]. I am also using MEGA for the German text of the first edition [Mar83].

The new translation contained in these Annotations tries to make the precise meaning of Marx's text better intelligible to the English-speaking audience. I consulted the translations in [Mar76], [Mar70], and also the excellent translation [Mar30]. I did not aim to reproduce all ambiguities of the German text. If the German can be understood in two different ways, and interpretation *a* is, in my view, clearly right while interpretation *b* is wrong, then my translation will only try to bring out interpretation *a*. Notes about the translations are typeset in small print in three columns.

In the translation, I sometimes translated Marx's examples in British currency into a decimal currency (dollars), at the exchange rate £1=\$4.80. £1 consists of 20 shillings, therefore 1 shilling=24 cents, and 1 shilling consists of 12 pence, therefore 1 penny=2 cents.

For the sake of this commentary, some chapters are divided into more sections and sub-sections than the division made by Marx himself. The newly introduced subtitles are given in square brackets.

These Annotations are under constant revision. The version at the web site of the Economics Department of the University of Utah <http://content.csbs.utah.edu/~ehrbar/akmc.htm> is now out of date.

If you want a newer version, please email Hans at ehrbar@economics.utah.edu. Hans is planning to put this pdf here along with its source code on [github](#), this should happen some time in 2022. Hans's attempts to transfer these Annotations from the present L^AT_EX source code into TEI will never be completed by Hans himself and the beginning of this will also be available on [github](#), in the hope that others will continue his work.

Preface to the First Edition of 'Capital'

What follows below is the text of the preface to the first edition as it was included in the fourth edition. The original text of the first edition is available as a separate file [first.pdf](#).

This preface begins with a few remarks about the connection between *Capital* and Marx's earlier work *A Contribution to the Critique of Political Economy* (which is also included in this collection as a separate file [akmcq.pdf](#)).

7:1 This work, whose first volume I now submit to the public, forms the continuation of my book *Zur Kritik der Politischen Oekonomie*, published in 1859. The long pause between the first part and the continuation is due to an illness of many years' duration, which interrupted my work again and again.

7:2 The substance of that earlier work is summarized in the first chapter of this volume. This is done not merely for the sake of coherence and completeness. The presentation is improved. As far as circumstances in any way permit, many points only hinted at in the earlier book are here worked out more fully, while, conversely, points worked out fully there are only touched upon in this volume. The sections on the history of the theories of value and of money are now, of course, left out altogether. However, the reader of the earlier work will find new sources relating to the history of those theories in the notes to the first chapter.

Next come some interesting methodological remarks.

7:3/o All beginni are difficult, whatever the science. The understanding of the first chapter, especially the section that contains the analysis of commodities, will therefore present the greatest difficulty. I have popularized the passages concerning the substance of value and the magnitude of value as much as possible.¹

¹ This seems the more necessary, in that even

11:1 Das Werk, dessen ersten Band ich dem Publikum übergebe, bildet die Fortsetzung meiner 1859 veröffentlichten Schrift: „Zur Kritik der Politischen Oekonomie“. Die lange Pause zwischen Anfang und Fortsetzung ist einer langjährigen Krankheit geschuldet, die meine Arbeit wieder und wieder unterbrach.

11:2 Der Inhalt jener früheren Schrift ist resümiert im ersten Kapitel dieses Bandes. Es geschah dies nicht nur des Zusammenhangs und der Vollständigkeit wegen. Die Darstellung ist verbessert. Soweit es der Sachverhalt irgendwie erlaubte, sind viele früher nur angedeuteten Punkte hier weiter entwickelt, während umgekehrt dort ausführlich Entwickeltes hier nur angedeutet wird. Die Abschnitte über die Geschichte der Wert- und Geldtheorie fallen jetzt natürlich ganz weg. Jedoch findet der Leser der früheren Schrift in den Noten zum ersten Kapitel neue Quellen zur Geschichte jener Theorie eröffnet.

11:3/o Aller Anfang ist schwer, gilt in jeder Wissenschaft. Das Verständnis des ersten Kapitels, namentlich des Abschnitts, der die Analyse der Ware enthält, wird daher die meiste Schwierigkeit machen. Was nun näher die Analyse der Werts substanz und der Wertgröße betrifft, so habe ich sie möglichst popularisiert.¹

¹ Es schien dies um so nötiger, als selbst der

the section of Ferdinand Lassalle's work against Schulze-Delitzsch in which he professes to give 'the intellectual quintessence' of my explanations on these matters contains important mistakes. If Ferdinand Lassalle has borrowed almost literally from my writings, and without any acknowledgement, all the general theoretical propositions in his economic works, for example those on the historical character of capital, on the connection between the relations of production and the mode of production, etc., etc., even down to the terminology created by me, this may perhaps be due to purposes of propaganda. I am of course not speaking here of his detailed working-out and application of these propositions, which I have nothing to do with.

Abschnitt von F. Lassalles Schrift gegen Schulze-Delitzsch, worin er „die geistige Quintessenz“ meiner Entwicklung über jene Themata zu geben erklärt, bedeutende Mißverständnisse enthält. En passant. Wenn F. Lassalle die sämtlichen allgemeinen theoretischen Sätze seiner ökonomischen Arbeiten, z.B. über den historischen Charakter des Kapitals, über den Zusammenhang zwischen Produktionsverhältnissen und Produktionsweise usw. usw. fast wörtlich, bis auf die von mir geschaffene Terminologie hinab, aus meinen Schriften entlehnt hat, und zwar ohne Quellenangabe, so war dies Verfahren wohl durch Propagandarücksichten bestimmt. Ich spreche natürlich nicht von seinen Detailausführungen und Nutzenanwendungen, mit denen ich nichts zu tun habe.

After this, the foreword to the first edition 11:3/o says that especially the analysis of the form of value in the first edition was difficult to understand, because Marx had made the dialectic much "sharper" than in *Contribution*. Therefore the first edition contained a special appendix in which this analysis was explained in a simpler and even textbook-like (schulmeisterlich) manner. Beginning with the second edition, this appendix was worked into the main text, therefore the passage in the foreword explaining the appendix was omitted. Despite the reworking of this passage, Marx apparently considered the analysis of the form of value, i.e., Section 1.3, to be the most difficult, because the most abstract, part of the book.

The value-form, whose fully developed shape is the money-form, is very simple and slight in content. Nevertheless, the human mind has sought in vain for more than 2,000 years to get to the bottom of it, while on the other hand there has been at least an approximation to a successful analysis of forms which are much richer in content and more complex. Why? Because the complete body is easier to study than its cells.

Die Wertform, deren fertige Gestalt die Geldform, ist sehr inhaltslos und einfach. Dennoch hat der Menschegeist sie seit mehr als 2000 Jahren vergeblich zu ergründen gesucht, während andererseits die Analyse viel inhaltvollerer und komplizierterer Formen wenigstens annähernd gelang. Warum? Weil der ausgebildete Körper leichter zu studieren ist als die Körperzelle.

This comparison explains why Marx begins with the commodity.

Question 1 What did Marx mean with his formulation "the value form is slight in content"? 2007fa, 2005fa.

Question 2 Why is the complete body easier to study than the cells?

Moreover, in the analysis of economic forms, neither microscopes nor chemical reagents are of assistance. The force of abstraction must replace both.

Bei der Analyse der ökonomischen Formen kann außerdem weder das Mikroskop dienen noch chemische Reagentien. Die Abstraktionskraft muß beide ersetzen.

↑ Marx compares abstraction with a microscope or with chemical reagents. At first sight they are three different things which seem to have nothing in common: abstraction is a thought process inside the brain, a microscope is an instrument allowing the observer to see what is happening, and chemical reagents are components of a process making this process

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possible. Abstraction is the mental activity of stripping off what is irrelevant and One has to bring in the Hegelian concept of immersion to see what they have in common. Abstraction allows the agents in capitalist society to see what they are doing (microscope), namely, reproduce capitalist society, and this better understanding will enable them to influence the process (chemical reagents), namely, work towards a better society.

But for bourgeois society, the commodity-form of the product of labor, or the value-form of the commodity, is the economic cell-form. To the uneducated observer, the analysis of these forms seems to turn upon minutiae. It does in fact deal with minutiae, but so similarly does microscopic anatomy.

Für die bürgerliche Gesellschaft ist aber die Warenform des Arbeitsprodukts oder die Wertform der Ware die ökonomische Zellenform. Dem Ungebildeten scheint sich ihre Analyse in bloßen Spitzfindigkeiten herumsutreiben. Es handelt sich dabei in der Tat um Spitzfindigkeiten, aber nur so, wie es sich in der mikroskopischen Anatomie darum handelt.

The “commodity form of the product of labor” is not the same as the “value form of the commodity.” Their relationship is explained in 72:1. Both forms share the honor of being called here the economic “cell form” of capitalist society. I.e., capitalist society is not only based on almost every product of labor being produced by private producers, but also on the agents on the surface of the economy treating the labor in these commodities as objective properties of the products.

With the exception of the section on the form of value, therefore, this volume cannot stand accused on the score of difficulty. I assume, of course, a reader who is willing to learn something new and therefore to think for himself.

12:1 Mit Ausnahme des Abschnitts über die Wertform wird man daher dies Buch nicht wegen Schwerverständlichkeit anklagen können. Ich unterstelle natürlich Leser, die etwas Neues lernen, also auch selbst denken wollen.

It takes effort to make oneself aware of the unintended consequences of one's actions.

Next point: Although Marx used England as his main illustration, which had at his time the most highly developed and purest capitalism, he stressed that the study of England was also relevant for those countries where capitalism was not yet fully developed, such as Germany:

The physicist observes natural processes either in situations where they appear in the clearest form with the least contamination by disturbing influences, or, wherever possible, he makes experiments under conditions which ensure that the process will occur in its pure state. What I have to examine in this work is the capitalist mode of production, and the relations of production and forms of intercourse that correspond to it. Until now, their locus classicus has been England. This is the reason why England is used as the main illustration of the theoretical developments I make.

12:2 Der Physiker beobachtet Naturprozesse entweder dort, wo sie in der prägnantesten Form und von störenden Einflüssen mindest getrübt erscheinen, oder, wo möglich, macht er Experimente unter Bedingungen, welche den reinen Vorgang des Prozesses sichern. Was ich in diesem Werk zu erforschen habe, ist die kapitalistische Produktionsweise und die ihr entsprechenden Produktions- und Verkehrsverhältnisse. Ihre klassische Stätte ist bis jetzt England. Dies der Grund, warum es zur Hauptillustration meiner theoretischen Entwicklung dient.

↓ Just as today's Europeans feel superior to the crude US Americans, it seems that the Germans at Marx's time looked down on the conditions in England as an aberration which

did not concern them. Marx is telling his German readers that, far from England being an aberration, it is their own future.

If, however, the German reader pharisaically shrugs his shoulders at the condition of the English industrial and agricultural workers, or optimistically comforts himself with the thought that in Germany things are not nearly so bad, I must plainly tell him: De te fabula narratur!

Sollte jedoch der deutsche Leser pharisäisch die Achseln zucken über die Zustände der englischen Industrie- und Ackerbauarbeiter oder sich optimistisch dabei beruhigen, daß in Deutschland die Sachen noch lange nicht so schlimm stehn, so muß ich ihm zurufen: De te fabula narratur!

Question 3 () In , Marx calls a certain possible reaction of his German readers to his writings “pharisaical.” Explain which reaction, discuss whether a comparison with a pharisee is appropriate.

Next Marx draws a generalization from this. Bhaskar would say that the things which Marx says here are generally valid for all sciences, not only political economy but even for physics. The subject of scientific inquiry are not the phenomena per se, not even the degree to which the underlying forces have generated social antagonisms, but these underlying forces themselves. For a scientist studying thunderstorms, the number of lightnings is only of secondary importance. The primary interest is on those mechanisms which lead to lightnings, and the conditions enhancing those mechanisms if there are many lightnings. Coming back to political economy, the underlying mechanisms Marx is interested in are as inexorably at work in Germany as they are in England. Germany will eventually look like England:

Intrinsically, it is not a question of the higher or lower degree of development of the social antagonisms that spring from the natural laws of capitalist production. It is a question of these laws themselves, of these tendencies winning their way through and working themselves out with iron necessity. The country that is more developed industrially only shows, to the less developed, the image of its own future.

12:3 An und für sich handelt es sich nicht um den höheren oder niedrigeren Entwicklungsgrad der gesellschaftlichen Antagonismen, welche aus den Naturgesetzen der kapitalistischen Produktion entspringen. Es handelt sich um diese Gesetze selbst, um diese mit eherner Notwendigkeit wirkenden und sich durchsetzenden Tendenzen. Das industriell entwickeltere Land zeigt dem minder entwickelten nur das Bild der eigenen Zukunft.

Marx’s remarks about the scientific method in general are very similar to Bhaskar’s approach in [Bha78], with one difference: in his *Realist Theory of Science*, Bhaskar does not talk about the *development* of the generative forces studied by the scientist. Only much later, in [Bha93], does Bhaskar say that his *Realist Theory of Science* must be dialecticized.

This said, Marx makes nevertheless some remarks about the situation in Germany.

But in any case, and apart from all this, where capitalist production has made itself fully at home amongst us, for instance in the factories properly so called, the situation is much worse than in England, because the counterweight of the Factory Acts is absent. In all other spheres, Germany, just like the rest of Continental Western Europe, suf-

12:4/o Aber abgesehn hiervon. Wo die kapitalistische Produktion völlig bei uns eingebürgert ist, z.B. in den eigentlichen Fabriken, sind die Zustände viel schlechter als in England, weil das Gegengewicht der Fabrikgesetze fehlt. In allen andren Sphären quält uns, gleich dem ganzen übrigen kontinentalen Westeuropa, nicht nur die Entwick-

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fers not only from the development of capitalist production, but also from the incompleteness of that development. Alongside the modern evils, we Germans are oppressed by a whole series of inherited evils, arising from the passive survival of archaic and outmoded modes of production, with their accompanying train of anachronistic social and political relations. We suffer not only from the living, but from the dead. *Le mort saisit le vif!*

↓ Only few data are available about the conditions inside the capitalist factories in Germany. But from the little that is known one must fear that the conditions in the factories are worse than what is generally assumed. If Germany, like England, had factory inspectors with the right to enter and inspect the privately owned factories, then the myth that Germany is better than England would dissipate:

The social statistics of Germany and the rest of Continental Western Europe are, in comparison with those of England, quite wretched. But they raise the veil just enough to let us catch a glimpse of the Medusa's head behind it. We should be appalled at our own circumstances if, as in England, our governments and parliaments periodically appointed commissions of inquiry into economic conditions; if these commissions were armed with the same plenary powers to get at the truth; if it were possible to find for this purpose men as competent, as free from partisanship and respect of persons as are England's factory inspectors, her medical reporters on public health, her commissioners of inquiry into the exploitation of women and children, into conditions of housing and nourishment, and so on. Perseus wore a magic cap so that the monsters he hunted down might not see him. We draw the magic cap down over our own eyes and ears so as to deny that there are any monsters.

lung der kapitalistischen Produktion, sondern auch der Mangel ihrer Entwicklung. Neben den modernen Notständen drückt uns eine ganze Reihe vererbter Notstände, entspringend aus der Fortvegetation altertümlicher, überlebter Produktionsweisen, mit ihrem Gefolg von zeitwidrigen gesellschaftlichen und politischen Verhältnissen. Wir leiden nicht nur von den Lebenden, sondern auch von den Toten. *Le mort saisit le vif!*

15:1 Im Vergleich zur englischen ist die soziale Statistik Deutschlands und des übrigen kontinentalen Westeuropas elend. Dennoch lüftet sie den Schleier grade genug, um hinter demselben ein Medusenhaupt ahnen zu lassen. Wir würden vor unsren eignen Zuständen erschrecken, wenn unsre Regierungen und Parlamente, wie in England, periodische Untersuchungskommissionen über die ökonomischen Verhältnisse bestallten, wenn diese Kommissionen mit derselben Machtvollkommenheit, wie in England, zur Erforschung der Wahrheit ausgerüstet würden, wenn es gelänge, zu diesem Behuf ebenso sachverständige, unparteiische und rücksichtslose Männer zu finden, wie die Fabrikinspektoren Englands sind, seine ärztlichen Berichterstat-ter über „Public Health“ (Öffentliche Gesundheit), seine Untersuchungskommissäre über die Exploitation der Weiber und Kinder, über Wohnungs- und Nahrungszustände usw. Perseus brauchte eine Nebelkappe zur Verfolgung von Ungeheuern. Wir ziehen die Nebelkappe tief über Aug' und Ohr, um die Existenz der Ungeheuer weglegnen zu können.

Now some important remarks about the purpose of this theoretical analysis: Marx thought that the social processes which lead to the abolition of capitalism were well under way already in 1872:

9:4/o Let us not deceive ourselves about

15:2/o Man muß sich nicht darüber täu-

this. Just as in the eighteenth century the American War of Independence sounded the tocsin for the European middle class, so in the nineteenth century the American Civil War did the same for the European working class. In England the process of transformation is palpably evident. When it has reached a certain point, it must react on the Continent. There it will take a form more brutal or more humane, according to the degree of development of the working class itself.

↑ The abolition of slavery strengthened the US working class and along with it US capitalism.

Apart from any higher motives, then, the most basic interests of the present ruling classes dictate to them that they clear out of the way all legally removable obstacles to the development of the working class. For this reason, among others, I have devoted a great deal of space in this volume to the history, the details, and the results of the English factory legislation.

↑ Capitalists do not act altruistically but in their own most selfish interest if they make room for the development of the working class. Why? Because the interests of the working class allow the capitalist mode of production to flourish better than the narrow class interests of the capitalists. Marx says something similar in 300:1.

↓ Marx does not have the illusion that his efforts to document the evils of capitalism will immediately lead to the abolition of capitalism.

One nation should and can learn from others. Even when a society has begun to track down the natural laws of its movement—and it is the ultimate aim of this work to reveal the economic law of motion of modern society—it can neither leap over the natural phases of its development nor remove them by decree. But it can shorten and lessen the birth-pangs.

sehen. Wie der amerikanische Unabhängigkeitskrieg des 18. Jahrhunderts die Sturm-glocke für die europäische Mittelklasse läutete, so der amerikanische Bürgerkrieg des 19. Jahrhunderts für die europäische Arbeiterklasse. In England ist der Umwälzungs-prozeß mit Händen greifbar. Auf einem gewissen Höhepunkt muß er auf den Kontinent rückschlagen. Dort wird er sich in brutaleren oder humaneren Formen bewegen, je nach dem Entwicklungsgrad der Arbeiterklasse selbst.

Von höheren Motiven abgesehen, gebietet also den jetzt herrschenden Klassen ihr eigenes Interesse die Wegräumung aller gesetzlich kontrollierbaren Hindernisse, welche die Entwicklung der Arbeiterklasse hemmen. Ich habe deswegen u.a. der Geschichte, dem Inhalt und den Resultaten der englischen Fabrikgesetzgebung einen so ausführlichen Platz in diesem Bande eingeräumt.

Eine Nation soll und kann von der andern lernen. Auch wenn eine Gesellschaft dem Naturgesetz ihrer Bewegung auf die Spur gekommen ist—und es ist der letzte Endzweck dieses Werks, das ökonomische Bewegungsgesetz der modernen Gesellschaft zu enthüllen—, kann sie naturgemäße Entwicklungsphasen weder überspringen noch wegdekretieren. Aber sie kann die Geburtswehen abkürzen und mildern.

↑ This is against voluntarism. (Marx discusses voluntarism also in 100:4/oo.)

Question 4 What is voluntarism? 2005f.a.

↓ At the very end, Marx emphasizes that the target of his critique is the social structure, not the individuals themselves.

10:1 To prevent possible misunderstandings, let me say this. I do not by any means depict the capitalist and the landowner in

16:1 Zur Vermeidung möglicher Mißverständnisse ein Wort. Die Gestalten von Kapitalist und Grundeigentümer zeichne ich

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rosy colours. But individuals are dealt with here only in so far as they are the personifications of economic categories, the bearers of particular class-relations and interests. My standpoint, which views the development of the economic formation of society as a process of natural history, can less than any other make the individual responsible for relations whose creature he remains socially, however much he may subjectively raise himself above them.

keineswegs in rosigem Licht. Aber es handelt sich hier um die Personen nur, soweit sie die Personifikation ökonomischer Kategorien sind, Träger von bestimmten Klassenverhältnissen und Interessen. Weniger als jeder andere kann mein Standpunkt, der die Entwicklung der ökonomischen Gesellschaftsformation als einen naturgeschichtlichen Prozeß auffaßt, den einzelnen verantwortlich machen für Verhältnisse, deren Geschöpf er sozial bleibt, sosehr er sich auch subjektiv über sie erheben mag.

↑ If the development of the social structure is a process of natural history, this means it cannot be explained by the motives of the individuals living today. Marx says here that one cannot blame today's individuals for capitalism, because we all are the products of our society (despite the fact that some may subjectively rise themselves far above this).

Now some remarks about the sociology of economics:

In the domain of political economy, free scientific inquiry does not merely meet the same enemies as in all other domains. The peculiar nature of the material it deals with summons into the fray on the opposing side the most violent, sordid and malignant passions of the human breast, the Furies of private interest. The Established Church, for instance, will more readily pardon an attack on thirty-eight of its thirty-nine articles than on one thirty-ninth of its income. Nowadays atheism itself is a culpa levis, as compared with the criticism of existing property relations. Nevertheless, even here there is an unmistakable advance. I refer, as an example, to the Blue Book published within the last few weeks: 'Correspondence with Her Majesty's Missions Abroad, Regarding Industrial Questions and Trades' Unions'. There the representatives of the English Crown in foreign countries declare in plain language that in Germany, in France, in short in all the civilized states of the European Continent, a radical change in the existing relations between capital and labor is as evident and inevitable as in England. At the same time, on the other side of the Atlantic Ocean, Mr. Wade, Vice-President of the United States, has declared in public meetings that, after the abolition of slavery,

16:2 Auf dem Gebiete der politischen Ökonomie begegnet die freie wissenschaftliche Forschung nicht nur demselben Feinde wie auf allen anderen Gebieten. Die eigentümliche Natur des Stoffes, den sie behandelt, ruft wider sie die heftigsten, kleinlichsten und gehässigsten Leidenschaften der menschlichen Brust, die Furien des Privatinteresses, auf den Kampfplatz. Die englische Hochkirche z.B. verzeiht eher den Angriff auf 38 von ihren 39 Glaubensartikeln als auf 1/39 ihres Geldeinkommens. Heutzutage ist der Atheismus selbst eine culpa levis, verglichen mit der Kritik überlieferter Eigentumsverhältnisse. Jedoch ist hier ein Fortschritt unverkennbar. Ich verweise z.B. auf das in den letzten Wochen veröffentlichte Blaubuch: „Correspondence with Her Majesty's Missions Abroad, regarding Industrial Questions and Trades Unions“. Die auswärtigen Vertreter der englischen Krone sprechen es hier mit dürren Worten aus, daß in Deutschland, Frankreich, kurz allen Kulturstaaten des europäischen Kontinents, eine Umwandlung der bestehenden Verhältnisse von Kapital und Arbeit ebenso fühlbar und ebenso unvermeidlich ist als in England. Gleichzeitig erklärte jenseits des Atlantischen Ozeans Herr Wade, Vizepräsident der Vereinigten Staaten von Nordame-

a radical transformation in the existing relations of capital and landed property is on the agenda. These are signs of the times, not to be hidden by purple mantles or black cassocks. They do not signify that tomorrow a miracle will occur. They do show that, within the ruling classes themselves, the foreboding is emerging that the present society is no solid crystal, but an organism capable of change, and constantly engaged in a process of change.

rika, in öffentlichen Meetings: Nach Beseitigung der Sklaverei trete die Umwandlung der Kapital- und Grundeigentumsverhältnisse auf die Tagesordnung! Es sind dies Zeichen der Zeit, die sich nicht verstecken lassen durch Purpurmäntel oder schwarze Kutten. Sie bedeuten nicht, daß morgen Wunder geschehen werden. Sie zeigen, wie selbst in den herrschenden Klassen die Ahnung aufdämmert, daß die jetzige Gesellschaft kein fester Kristall, sondern ein umwandlungsfähiger und beständig im Prozeß der Umwandlung begriffener Organismus ist.

↓ Now a summary of the different volumes Marx was planning to write:

The second volume of this work will deal with the process of the circulation of capital (Book II) and the various forms of the process of capital in its totality (Book III), while the third and last volume (Book IV) will deal with the history of the theory.

17:1 Der zweite Band dieser Schrift wird den Zirkulationsprozeß des Kapitals (Buch II) und die Gestaltungen des Gesamtprozesses (Buch III), der abschließende dritte (Buch IV) die Geschichte der Theorie behandeln

I welcome every opinion based on scientific criticism. As to the prejudices of so-called public opinion, to which I have never made concessions, now, as ever, my maxim is that of the great Florentine:

17:2 Jedes Urteil wissenschaftlicher Kritik ist mir willkommen. Gegenüber den Vorurteilen der sog. öffentlichen Meinung, der ich nie Konzessionen gemacht habe, gilt mir nach wie vor der Wahlspruch des großen Florentiners:

↑ Marx altered Dante's words to make them fit in here. The original is 'Vien retro a me, e lascia dir le genti' ('Follow me, and let the people talk'), in *Divina Commedia*, *Purgatorio*, Canto V, line 13.

Karl Marx
London, 25 July 1867

17:3 *London*, 25. Juli 1867
17:4 *Karl Marx*

Afterword to the Second Edition

I must start by informing the readers of the first edition about the alterations made in the second edition. The clearer arrangement of the book will be immediately apparent. Additional notes are everywhere marked as notes to the second edition. The following are the most important points with regard to the text itself:

In chapter 1, section 1, the derivation of value by analysis of the equations in which every exchange-value is expressed, has been carried out with greater scientific rigour; similarly, the connection between the substance of value and the determination of the magnitude of value by the labor-time socially necessary, which was only alluded to in the first edition, is now expressly emphasized. Chapter 1, section 3 (on the form of value), has been completely revised, a task which was made necessary by the twofold presentation of it in the first edition, if by nothing else. Let me remark in passing that this twofold presentation was occasioned by my friend Dr L. Kugelmann in Hanover. I was visiting him in the spring of 1867 when the first proof-sheets arrived from Hamburg, and he convinced me that most readers needed a supplementary, more didactic exposition of the form of value. The last section of the first chapter, 'The Fetish-Like Character of Commodities, etc.', has been altered considerably. Chapter 3, section I (on the measure of values), has been carefully revised, because in the first edition this section was treated carelessly, the reader having been referred to the explanation already given in *Zur Kritik der Politischen Ökonomie*, Berlin, 1859. Chapter 7, particularly section 2, has been reworked to a great extent.

18:1 Den Lesern der ersten Ausgabe habe ich zunächst Ausweis zu geben über die in der zweiten Ausgabe gemachten Veränderungen. Die übersichtlichere Einteilung des Buchs springt ins Auge. Zusätzliche Noten sind überall als Noten zur zweiten Ausgabe bezeichnet. Mit Bezug auf den Text selbst ist das Wichtigste:

18:2 In Kapitel I, 1 ist die Ableitung des Werts durch Analyse der Gleichungen, worin sich jeder Tauschwert ausdrückt, wissenschaftlich strenger durchgeführt, ebenso der in der ersten Ausgabe nur angedeutete Zusammenhang zwischen der Werts substanz und der Bestimmung der Wertgröße durch gesellschaftlich-notwendige Arbeitszeit ausdrücklich hervorgehoben. Kapitel I, 3 (Die Wertform) ist gänzlich umgearbeitet, was schon die doppelte Darstellung der ersten Ausgabe gebot.—Im Vorbeigehn bemerke ich, daß jene doppelte Darstellung durch meinen Freund, Dr. L. Kugelmann in Hannover, veranlaßt ward. Ich befand mich bei ihm zum Besuch im Frühling 1867, als die ersten Probefbogen von Hamburg ankamen, und er überzeugte mich, daß für die meisten Leser eine nachträgliche, mehr didaktische Auseinandersetzung der Wertform nötig sei.—Der letzte Abschnitt des ersten Kapitels, „Der Fetischcharakter der Ware etc.“, ist größtenteils verändert. Kapitel III, 1 (Maß der Werte) ist sorgfältig revidiert, weil dieser Abschnitt in der ersten Ausgabe, mit Hinweis auf die „Zur Kritik der Polit. Oek.“, Berlin 1859, bereits gegebene Auseinandersetzung, nachlässig behandelt war. Kapitel VII, besonders Teil 2, ist bedeutend umgearbeitet.

It would be pointless to go into all the partial textual changes, which are often purely stylistic. They occur throughout the book. Nevertheless, I find now, on revising the French translation which is appearing in Paris, that several parts of the German original stand in need of a rather thorough re-working, while other parts require rather heavy stylistic editing, and still others require the painstaking elimination of occasional slips. But there was no time for that. For I was informed only in the autumn of 1871, when in the midst of other urgent work, that the book was sold out and the printing of the second edition was to begin in January 1872.

The appreciation which *Das Kapital* rapidly gained in wide circles of the German working class is the best reward for my labors. A man who in economic matters represents the bourgeois standpoint, the Viennese manufacturer Herr Mayer, in a pamphlet published during the Franco-German War, aptly expounded the idea that the great capacity for theory, which used to be considered a hereditary German attribute, had almost completely disappeared amongst the so-called educated classes in Germany, but that amongst the working class, on the contrary, it was enjoying a revival.

Political economy remains a foreign science in Germany, up to this very moment. In his *Geschichtliche Darstellung des Handels, der Gewerbe, usw.*, especially in the first two volumes, published in 1830, Gustav von Gulich has already examined, for the most part, the historical circumstances that prevented the development of the capitalist mode of production in Germany, and consequently the construction there of modern bourgeois society. Thus the living soil from which political economy springs was absent. It had to be imported from England and France as a ready-made article; its German professors always remained pupils. The theoretical expression of an alien reality turned in their hands into a collection of

18:3/o Es wäre nutzlos, auf die stellenweisen Textänderungen, oft nur stilistisch, im einzelnen einzugehn. Sie erstrecken sich über das ganze Buch. Dennoch finde ich jetzt bei Revision der zu Paris erscheinenden französischen Übersetzung, daß manche Teile des deutschen Originals hier mehr durchgreifende Umarbeitung, dort größere stilistische Korrektur oder auch sorgfältigere Beseitigung gelegentlicher Versehn erheischt hätten. Es fehlte dazu die Zeit, indem ich erst im Herbst 1871, mitten unter andren dringenden Arbeiten die Nachricht erhielt, daß das Buch vergriffen sei, der Druck der zweiten Ausgabe aber bereits im Januar 1872 beginnen sollte.

19:1 Das Verständnis, welches „Das Kapital“ rasch in weiten Kreisen der deutschen Arbeiterklasse fand, ist der beste Lohn meiner Arbeit. Ein Mann, ökonomisch auf dem Bourgeoisstandpunkt, Herr Mayer, Wiener Fabrikant, tat in einer während des deutsch-französischen Kriegs veröffentlichten Broschüre treffend dar, daß der große theoretische Sinn, der als deutsches Erbgut galt, den sog. gebildeten Klassen Deutschlands durchaus abhanden gekommen ist, dagegen in seiner Arbeiterklasse neu auflebt.

19:2 Die politische Ökonomie blieb in Deutschland bis zu dieser Stunde eine ausländische Wissenschaft. Gustav von Gülich hat in „Geschichtliche Darstellung des Handels, der Gewerbe usw.“, namentlich in den 1830 herausgegebenen zwei ersten Bänden seines Werkes, größtenteils schon die historischen Umstände erörtert, welche die Entwicklung der kapitalistischen Produktionsweise bei uns hemmten, daher auch den Aufbau der modernen bürgerlichen Gesellschaft. Es fehlte also der lebendige Boden der politischen Ökonomie. Sie ward als fertige Ware importiert aus England und Frankreich; ihre deutschen Professoren blieben Schüler. Der theoretische Ausdruck einer fremden Wirklichkeit verwandelte sich unter ihrer

dogmas, interpreted by them in the sense of the petty-bourgeois world surrounding them, and therefore misinterpreted. The feeling of scientific impotence, a feeling which could not entirely be suppressed, and the uneasy awareness that they had to master an area in fact entirely foreign to them, was only imperfectly concealed beneath a parade of literary and historical erudition, or by an admixture of extraneous material borrowed from the so-called kameral sciences, a medley of smatterings through whose purgatory the hopeful candidate for the German bureaucracy has to pass.

Since 1848 capitalist production has developed rapidly in Germany, and at the present time it is in the full bloom of speculation and swindling. But fate is still unpropitious to our professional economists. At the time when they were able to deal with political economy in an unprejudiced way, modern economic conditions were absent from the reality of Germany. And as soon as these conditions did come into existence, it was under circumstances that no longer permitted their impartial investigation within the bounds of the bourgeois horizon. In so far as political economy is bourgeois, i.e. in so far as it views the capitalist order as the absolute and ultimate form of social production, instead of as a historically transient stage of development, it can only remain a science while the class struggle remains latent or manifests itself only in isolated and sporadic phenomena.

Let us take England. Its classical political economy belongs to a period in which the class struggle was as yet undeveloped. Its last great representative, Ricardo, ultimately (and consciously) made the antagonism of class interests, of wages and profits, of profits and rent, the starting-point of his investigations, naively taking this antagonism for a social law of nature. But with this contribution the bourgeois science of economics had reached the limits beyond which it could not pass. Already in Ricardo's life-

Hand in eine Dogmensammlung, von ihnen gedeutet im Sinn der sie umgebenden kleinbürgerlichen Welt, also mißdeutet. Das nicht ganz unterdrückbare Gefühl wissenschaftlicher Ohnmacht und das unheimliche Gewissen, auf einem in der Tat fremdartigen Gebiet schulmeistern zu müssen, suchte man zu verstecken unter dem Prunk literarhistorischer Gelehrsamkeit oder durch Beimischung fremden Stoffes, entlehnt den sog. Kameralwissenschaften, einem Mischmasch von Kenntnissen, deren Fegfeuer der hoffnungsvolle Kandidat deutscher Bürokratie zu bestehn hat.

19:3/o Seit 1848 hat sich die kapitalistische Produktion rasch in Deutschland entwickelt und treibt heutzutage bereits ihre Schwindelblüte. Aber unsren Fachleuten blieb das Geschick gleich abhold. Solange sie politische Ökonomie unbefangen treiben konnten, fehlten die modernen ökonomischen Verhältnisse in der deutschen Wirklichkeit. Sobald diese Verhältnisse ins Leben traten, geschah es unter Umständen, welche ihr unbefangenes Studium innerhalb des bürgerlichen Gesichtskreises nicht länger zulassen. Soweit sie bürgerlich ist, d.h. die kapitalistische Ordnung statt als geschichtlich vorübergehende Entwicklungsstufe, umgekehrt als absolute und letzte Gestalt der gesellschaftlichen Produktion auffaßt, kann die politische Ökonomie nur Wissenschaft bleiben, solange der Klassenkampf latent bleibt oder sich in nur vereinzelten Erscheinungen offenbart.

20:1 Nehmen wir England. Seine klassische politische Ökonomie fällt in die Periode des unentwickelten Klassenkampfes. Ihr letzter großer Repräsentant, Ricardo, macht endlich bewußt den Gegensatz der Klasseninteressen, des Arbeitslohns und des Profits, des Profits und der Grundrente, zum Springpunkt seiner Forschungen, indem er diesen Gegensatz naiv als gesellschaftliches Naturgesetz auffaßt. Damit war aber auch die bürgerliche Wissenschaft der Ökonomie bei ihrer unüberschreitbaren Schranke ange-

time, and in opposition to him, it was met by criticism in the person of Sismondi.¹

¹ See my work *Zur Kritik der Politischen Ökonomie*, p. 39.

The succeeding period, from 1820 to 1830, was notable in England for the lively scientific activity which took place in the field of political economy. It was the period of both the vulgarizing and the extending of Ricardo's theory, and of the contest of that theory with the old school. Splendid tournaments were held. What was achieved at that time is little known on the European Continent, because the polemic is for the most part scattered over articles in reviews, pieces d'occasion and pamphlets. The unprejudiced character of this polemic—although Ricardo's theory already serves, in exceptional cases, as a weapon with which to attack the bourgeois economic system—is explained by the circumstances of the time. On the one hand, large-scale industry itself was only just emerging from its childhood, as is shown by the fact that the periodic cycle of its modern life opens for the first time with the crisis of 1825. On the other hand, the class struggle between capital and labor was forced into the background, politically by the discord between the governments and the feudal aristocracy gathered around the Holy Alliance, assembled in one camp, and the mass of the people, led by the bourgeoisie, in the other camp, and economically by the quarrel between industrial capital and aristocratic landed property. This latter quarrel was concealed in France by the antagonism between small-scale fragmented property and big landownership, but in England it broke out openly after the passing of the Corn Laws. The literature of political economy in England at this time calls to mind the economic 'storm and stress period' which in France followed the death of Dr. Quesnay, but only as an Indian summer reminds us of spring. With the year 1830 there came the crisis which was

langt. Noch bei Lebzeiten Ricardos und im Gegensatz zu ihm trat ihr in der Person Sismondis die Kritik gegenüber.¹

¹ Siehe meine Schrift „Zur Kritik etc.“, p. 39.

20:2 Die nachfolgende Zeit von 1820–1830 zeichnet sich in England aus durch wissenschaftliche Lebendigkeit auf dem Gebiet der politische Ökonomie. Es war die Periode wie der Vulgarisierung und Ausbreitung der Ricardosche Theorie, so ihres Kampfes mit der alten Schule. Es wurden glänzende Turniere gefeiert. Was damals geleistet worden, ist dem europäischen Kontinent wenig bekannt, da die Polemik größtenteils in Revueartikeln, Gelegenheitschriften und Pamphlets zerstreut ist. Der unbefangene Charakter dieser Polemik—obgleich die Ricardosche Theorie ausnahmsweise auch schon als Angriffswaffe wider die bürgerliche Wirtschaft dient—erklärt sich aus den Zeitumständen. Einerseits trat die große Industrie selbst nur aus ihrem Kindheitsalter heraus, wie schon dadurch bewiesen ist, daß sie erst mit der Krise von 1825 den periodischen Kreislauf ihres modernen Lebens eröffnet. Andererseits blieb der Klassenkampf zwischen Kapital und Arbeit in den Hintergrund gedrängt, politisch durch den Zwist zwischen den um die Heilige Allianz gescharten Regierungen und Feudalen und der von der Bourgeoisie geführten Volksmasse, ökonomisch durch den Hader des industriellen Kapitals mit dem aristokratischen Grundeigentum, der sich in Frankreich hinter dem Gegensatz von Parzelleneigentum und großem Grundbesitz verbarg, in England seit den Korngesetzen offen ausbrach. Die Literatur der politischen Ökonomie in England erinnert während dieser Periode an die ökonomische Sturm- und Drangperiode in Frankreich nach Dr. Quesnays Tod, aber nur wie ein Altweibersommer an den Frühling erinnert. Mit dem Jahr 1830 trat die ein für allemal entscheidende Krise ein.

Afterword to the Second Edition

to be decisive, once and for all.

In France and England the bourgeoisie had conquered political power. From that time on, the class struggle took on more and more explicit and threatening forms, both in practice and in theory. It sounded the knell of scientific bourgeois economics. It was thenceforth no longer a question whether this or that theorem was true, but whether it was useful to capital or harmful, expedient or inexpedient, in accordance with police regulations or contrary to them. In place of disinterested inquirers there stepped hired prize-fighters; in place of genuine scientific research, the bad conscience and evil intent of apologetics. Still, even the importunate pamphlets with which the Anti-Corn Law League, led by the manufacturers Cobden and Bright, deluged the world offer a historical interest, if no scientific one, on account of their polemic against the landed aristocracy. But since then the free-trade legislation inaugurated by Sir Robert Peel has deprived vulgar economics even of this, its last sting.

The Continental revolution of 1848 also had its reaction in England. Men who still claimed some scientific standing and aspired to be something more than mere sophists and sycophants of the ruling classes tried to harmonize the political economy of capital with the claims, no longer to be ignored, of the proletariat. Hence a shallow syncretism, of which John Stuart Mill is the best representative. This is a declaration of bankruptcy by 'bourgeois' economics, an event already illuminated in a masterly manner by the great Russian scholar and critic N. Chernyshevsky, in his *Outlines of Political Economy According to Mill*.

In Germany, therefore, the capitalist mode of production came to maturity after its antagonistic character had already been revealed (with much sound and fury) by the

21:1 Die Bourgeoisie hatte in Frankreich und England politische Macht erobert. Von da an gewann der Klassenkampf, praktisch und theoretisch, mehr und mehr ausgesprochene und drohende Formen. Er läutete die Totenglocke der wissenschaftlichen bürgerlichen Ökonomie. Es handelte sich jetzt nicht mehr darum, ob dies oder jenes Theorem wahr sei, sondern ob es dem Kapital nützlich oder schädlich, bequem oder unbequem, ob polizeiwidrig oder nicht. An die Stelle uneigennütziger Forschung trat bezahlte Klopffechtere, an die Stelle unbefangener wissenschaftlicher Untersuchung das böse Gewissen und die schlechte Absicht der Apologetik. Indes selbst die zudringlichen Traktätchen, welche die Anti-Corn-Law League, mit den Fabrikanten Cobden und Bright an der Spitze, in die Welt schleuderte, boten, wenn kein wissenschaftliches, doch ein historisches Interesse durch ihre Polemik gegen die grundeigentümliche Aristokratie. Auch diesen letzten Stachel zog die Freihandelsgesetzgebung seit Sir Robert Peel der Vulgärökonomie aus.

21:2 Die kontinentale Revolution von 1848 schlug auch auf England zurück. Männer, die noch wissenschaftliche Bedeutung beanspruchten und mehr sein wollten als bloße Sophisten und Sykophanten der herrschenden Klassen, suchten die politische Ökonomie des Kapitals in Einklang zu setzen mit den jetzt nicht länger zu ignorierenden Ansprüchen des Proletariats. Daher ein geistloser Synkretismus, wie ihn John Stuart Mill am besten repräsentiert. Es ist eine Bankrotterklärung der „bürgerlichen“ Ökonomie, welche der große russische Gelehrte und Kritiker N. Tschernyschewski in seinem Werk „Umrisse der politischen Ökonomie nach Mill“ bereits meisterhaft beleuchtet hat.

21:3 In Deutschland kam also die kapitalistische Produktionsweise zur Reife, nachdem ihr antagonistischer Charakter sich in Frankreich und England schon durch ge-

historic struggles taking place in France and England. The German proletariat had at that time already attained a far clearer theoretical awareness than the German bourgeoisie. Thus, at the very moment when a bourgeois science of political economy at last seemed possible in Germany, it had in reality already become impossible again.

↑ Presumably, bourgeois political economy finally seemed possible because capitalism finally had attained maturity, but it became impossible again because the resistance of the proletariat forced the ruling class and their scientific spokespeople into defensive obfuscation.

Under these circumstances its spokespeople divided into two groups. The one set, prudent, practical business folk, flocked to the banner of Bastiat, the most superficial and therefore the most successful representative of apologetic vulgar economics; the other set, proud of the professorial dignity of their science, followed John Stuart Mill in his attempt to reconcile the irreconcilable. Just as in the classical period of bourgeois economics, so also in the period of its decline, the Germans remained mere pupils, imitators and followers, petty retailers and hawkers in the service of the great foreign wholesale concern.

The peculiar historical development of German society therefore precluded any original development of 'bourgeois' economics there, but did not preclude its critique. In so far as such a critique represents a class, it can only represent the class whose historical task is the overthrow of the capitalist mode of production and the final abolition of all classes—the proletariat.

The learned and unlearned spokesmen of the German bourgeoisie tried at first to kill *Das Kapital* with silence, a technique which had succeeded with my earlier writings. As soon as they found that these tactics no longer fitted the conditions of the time, they wrote prescriptions 'for tranquilizing the bourgeois mind', on the pretext of criticizing my book. But they found in the workers' press—see for example Joseph Dietzgen's articles in the *Volksstaat*—champions

schichtliche Kämpfe geräuschvoll offenbart hatte, während das deutsche Proletariat bereits ein viel entschiedneres theoretisches Klassenbewußtsein besaß als die deutsche Bourgeoisie. Sobald eine bürgerliche Wissenschaft der politischen Ökonomie hier möglich zu werden schien, war sie daher wieder unmöglich geworden.

21:4 Unter diesen Umständen teilten sich ihre Wortführer in zwei Reihen. Die einen, kluge, erwerbslustige, praktische Leute, scharten sich um die Fahne Bastiats, des flachsten und daher gelungensten Vertreters vulgärökonomischer Apologetik; die anderen, stolz auf die Professoralwürde ihrer Wissenschaft, folgten J. St. Mill in dem Versuch, Unversöhnbares zu versöhnen. Wie zur klassischen Zeit der bürgerlichen Ökonomie blieben die Deutschen auch zur Zeit ihres Verfalls bloße Schüler, Nachbeter und Nachtreter, Kleinhausierer des ausländischen Großgeschäfts.

22:1 Die eigentümliche historische Entwicklung der deutschen Gesellschaft schloß hier also jede originelle Fortbildung der „bürgerlichen“ Ökonomie aus, aber nicht deren—Kritik. Soweit solche Kritik überhaupt eine Klasse vertritt, kann sie nur die Klasse vertreten, deren geschichtlicher Beruf die Umwälzung der kapitalistischen Produktionsweise und die schließliche Abschaffung der Klassen ist—das Proletariat.

22:2 Die gelehrten und ungelehrten Wortführer der deutschen Bourgeoisie haben „*Das Kapital*“ zunächst totzuschweigen versucht, wie ihnen das mit meinen frühern Schriften gelungen war. Sobald diese Taktik nicht länger den Zeitverhältnissen entsprach, schrieben sie, unter dem Vorwand, mein Buch zu kritisieren, Anweise „Zur Beruhigung des bürgerlichen Bewußtseins“, fanden aber in der Arbeiterpresse—sich z.B. Joseph Dietzgens Aufsätze im „*Volksstaat*“—überlegene

stronger than themselves, to whom they still owe a reply even now.¹

¹ The mealy-mouthed babblers of German vulgar economics grumbled about the style of my book. No one can feel the literary shortcomings of *Capital* more strongly than I myself. Yet I will quote in this connection one English and one Russian complaint, for the benefit and enjoyment of these gentlemen and their public. The *Saturday Review*, an entirely hostile journal, said in its announcement of the first edition: 'The presentation of the subject invests the driest economic questions with a certain peculiar charm.' The *St. Petersburg Journal* (Sankt-Peterburg Vyedomosty), in its issue of 20 April 1872, says: 'The presentation of the subject, with the exception of one or two excessively specialized parts, is distinguished by its comprehensibility to the general reader, its clearness, and, in spite of the high scientific level of the questions discussed, by an unusual liveliness. In this respect the author in no way resembles ... the majority of German scholars, who ... write their books in a language so obscure and dry that it makes the heads of ordinary mortals burst.' Something quite different is bursting than the head of the readers of the literature of modern German-national-liberal professors

Instead of "the head bursting," the metaphor is in German "the head noisily crashing (*kracht*)." What, other than the head, can noisily crash? Obviously the arse. Perhaps Marx means that they get diarrhea from swallowing something indigestible.

An excellent Russian translation of *Capital* appeared in the spring of 1872 in St. Petersburg. The edition of 3,000 copies is already nearly exhausted. As early as 1871, N. Sieber, Professor of Political Economy in the University of Kiev, in his work *David Ricardo's Theory of Value and of Capital*, referred to my theory of value, money and capital as in its fundamentals a necessary sequel to the teaching of Smith and Ricardo. What astonishes a Western European when he reads this solid piece of work is the author's consistent and firm grasp of the purely theoretical position.

That the method employed in *Capital* has been little understood is shown by the vari-

Kämpfen, denen sie die Antwort bis heute schuldig.¹

¹ Die breimäuligen Faselhänse der deutschen Vulgärökonomie schelten Stil und Darstellung meiner Schrift. Niemand kann die literarischen Mängel des „*Kapital*“ strenger beurteilen als ich selbst. Dennoch will ich, zu Nutz und Freud dieser Herren und ihres Publikums, hier ein englisches und ein russisches Urteil zitieren. Die meinen Ansichten durchaus feindliche „*Saturday Review*“ sagte in ihrer Anzeige der ersten deutschen Ausgabe: Die Darstellung „verleiht auch den trockensten ökonomischen Fragen einen Reiz (charm)“. Die „*St.-Petersburger Zeitung*“ bemerkt in ihrer Nummer vom 20. April 1872 u.a.: „Die Darstellung mit Ausnahme weniger zu spezieller Teile zeichnet sich aus durch Allgemeinverständlichkeit, Klarheit und, trotz der wissenschaftlichen Höhe des Gegenstands, ungewöhnliche Lebendigkeit. In dieser Hinsicht gleicht der Verfasser ... auch nicht von fern der Mehrzahl deutscher Gelehrten, die ... ihre Bücher in so verfinsteter und trockner Sprache schreiben, daß gewöhnlichen Sterblichen der Kopf davon kracht.“ Den Lesern der zeitläufigen deutsch-national-liberalen Professoralliteratur kracht jedoch etwas ganz anders als der Kopf.

22:3 Eine treffliche russische Übersetzung des „*Kapitals*“ erschien im Frühling 1872 zu Petersburg. Die Auflage von 3000 Exemplaren ist jetzt schon beinahe vergriffen. Bereits 1871 hatte Herr N. Sieber, Professor der politischen Ökonomie an der Universität zu Kiew, in seiner Schrift: „*D. Ricardos Theorie des Werts und des Kapitals etc.*“ meine Theorie des Werts, des Geldes und des Kapitals in ihren Grundzügen als notwendige Fortbildung der Smith-Richardoschen Lehre nachgewiesen. Was den Westeuropäer beim Lesen seines gediegenen Buchs überrascht, ist das konsequente Festhalten des rein theoretischen Standpunkts.

25:1 Die im „*Kapital*“ angewandte Methode ist wenig verstanden worden, wie

ous mutually contradictory conceptions that have been formed of it.

Thus the Paris Revue Positiviste reproaches me for, on the one hand, treating economics metaphysically, and, on the other hand imagine this!—confining myself merely to the critical analysis of the actual facts, instead of writing recipes (Comtist ones?) for the cook-shops of the future. Professor Sieber has already given the answer to the reproach about metaphysics:

‘In so far as it deals with actual theory, the method of Marx is the deductive method of the whole English school, a school whose failings and virtues are common to the best theoretical economists.’

Mr M. Block—in *Les Théoriciens du socialisme en Allemagne*. Extrait du *Journal des Economistes*, Juillet et Aout 1872—makes the discovery that my method is analytic, and says:

‘With this work, M. Marx can be ranged among the most eminent analytical thinkers.’

The German reviewers, of course, cry out against my ‘Hegelian sophistry’. The European Messenger (*Vyestnik Evropy*) of St. Petersburg, in an article dealing exclusively with the method of Capital (May 1872 issue, pp. 427–36), finds my method of inquiry strictly realistic, but my method of presentation, unfortunately, German-dialectical. It says:

‘At first sight, if the judgement is made on the basis of the external form of the presentation, Marx is the most idealist of philosophers, and indeed in the German, i.e. the bad sense of the word. But in point of fact he is infinitely more realist than all his predecessors in the business of economic critique . . . He can in no sense be called an idealist.’

I cannot answer the writer of this review in any better way than by quoting a few extracts from his own criticism, which may, apart from this, interest some of my readers for whom the Russian original is inaccessible.

After a quotation from the preface to my *Zur Kritik der Politischen Ökonomie*,

schon die einander widersprechenden Auffassungen derselben beweisen.

25:2–3 So wirft mir die Pariser „Revue Positiviste“ vor, einerseits, ich behandle die Ökonomie metaphysisch, andererseits—man rate!—, ich beschränke mich auf bloß kritische Zergliederung des Gegebenen, statt Rezepte (comtistische?) für die Garküche der Zukunft zu verschreiben. Gegen den Vorwurf der Metaphysik bemerkt Prof. Sieber:

„Soweit es sich um die eigentliche Theorie handelt, ist die Methode von Marx die deduktive Methode der ganzen englischen Schule, deren Mängel und Vorzüge den besten theoretischen Ökonomen gemein sind.“

25:4–5 Herr M. Block—„*Les Théoriciens du Socialisme en Allemagne*. Extrait du *Journal des Économistes*, juillet et août 1872“—entdeckt, daß meine Methode analytisch ist, und sagt u.a.:

„Par cet ouvrage M. Marx se classe parmi les esprits analytiques les plus éminents.“

25:6–7 Die deutschen Rezensenten schreiben natürlich über Hegelsche Sophistik. Der Petersburger „Europäischer Bote“, in einem Artikel, der ausschließlich die Methode des „Kapital“ behandelt (Mainummer 1872, p. 427–436), findet meine Forschungsmethode streng realistisch, die Darstellungsmethode aber unglücklicherweise deutsch-dialektisch. Er sagt:

„Auf den ersten Blick, wenn man nach der äußern Form der Darstellung urteilt, ist Marx der größte Idealphilosoph, und zwar im deutschen, d.h. schlechten Sinn des Wortes. In der Tat aber ist er unendlich mehr Realist als alle seine Vorgänger im Geschäft der ökonomischen Kritik . . . Man kann ihn in keiner Weise einen Idealisten nennen.“

25:8 Ich kann dem Herrn Verfasser nicht besser antworten als durch einige Auszüge aus seiner eignen Kritik, die zudem manchen meiner Leser, dem das russische Original unzugänglich ist, interessieren mögen.

25:9–27:0 Nach einem Zitat aus meiner Vorrede zur „Kritik der Pol. Oek.“, Berlin

Berlin, 1850, p. iv–vii., where I have discussed the materialist basis of my method, the reviewer goes on:

‘The one thing which is important for Marx is to find the law of the phenomena with whose investigation he is concerned; and it is not only the law which governs these phenomena, in so far as they have a definite form and mutual connection within a given historical period, that is important to him. Of still greater importance to him is the law of their variation, of their development, i.e. of their transition from one form into another, from one series of connections into a different one. Once he has discovered this law, he investigates in detail the effects with which it manifests itself in social life ...

↑ So far, Kaufman has characterized Marx as a developmental depth realist: Marx is interested in (1) the law of the phenomena, (2) the law of the change and development of these laws, and (3) the manifestations of this law. ↓ The next passage is more epistemological:

Consequently, Marx only concerns himself with one thing: to show, by an exact scientific investigation, the necessity of successive determinate orders of social relations, and to establish, as impeccably as possible, the facts from which he starts out and on which he depends. For this it is quite enough, if he proves, at the same time, both the necessity of the present order of things, and the necessity of another order into which the first must inevitably pass over; and it is a matter of indifference whether men believe or do not believe it, whether they are conscious of it or not. Marx treats the social movement as a process of natural history, governed by laws not only independent of human will, consciousness and intelligence, but rather, on the contrary, determining that will, consciousness and intelligence ...

↑ Kaufman does not say how Marx proves these necessities which are independent of the intentions and consciousness of the agents, although he refers to empirical facts as points of departure and support. The missing concept here is that of second-order arguments. ↓ The next passage discusses the role of human consciousness:

If the conscious element plays such a subordinate part in the history of civilization, it is self-evident that a critique whose object is civilization itself can, less than anything else, have for its basis any form or any result of consciousness. This means that it is not the idea but only

1859, p. IV–VII, wo ich die materialistische Grundlage meiner Methode erörtert habe, fährt der Herr Verfasser fort:

„Für Marx ist nur eins wichtig: das Gesetz der Phänomene zu finden, mit deren Untersuchung er sich beschäftigt. Und ihm ist nicht nur das Gesetz wichtig, das sie beherrscht, soweit sie eine fertige Form haben und in einem Zusammenhang stehn, wie er in einer gegebenen Zeitperiode beobachtet wird. Für ihn ist noch vor allem wichtig das Gesetz ihrer Veränderung, ihrer Entwicklung, d.h. der Übergang aus einer Form in die andre, aus einer Ordnung des Zusammenhangs in eine andre. Sobald er einmal dies Gesetz entdeckt hat, untersucht er im Detail die Folgen, worin es sich im gesellschaftlichen Leben kundgibt ...

Demzufolge bemüht sich Marx nur um eins: durch genaue wissenschaftliche Untersuchung die Notwendigkeit bestimmter Ordnungen der gesellschaftlichen Verhältnisse nachzuweisen und soviel als möglich untadelhaft die Tatsachen zu konstatieren, die ihm zu Ausgangs- und Stützpunkten dienen. Hierzu ist vollständig hinreichend, wenn er mit der Notwendigkeit der gegenwärtigen Ordnung zugleich die Notwendigkeit einer andren Ordnung nachweist, worin die erste unvermeidlich übergehn muß, ganz gleichgültig, ob die Menschen das glauben oder nicht glauben, ob sie sich dessen bewußt oder nicht bewußt sind. Marx betrachtet die gesellschaftliche Bewegung als einen naturgeschichtlichen Prozeß, den Gesetze lenken, die nicht nur von dem Willen, dem Bewußtsein und der Absicht der Menschen unabhängig sind, sondern vielmehr umgekehrt deren Wollen, Bewußtsein und Absichten bestimmen ...

Wenn das bewußte Element in der Kulturgeschichte eine so untergeordnete Rolle spielt, dann versteht es sich von selbst, daß die Kritik, deren Gegenstand die Kultur selbst ist, weniger als irgend etwas andres, irgendeine Form oder irgendein Resultat des Bewußtseins

its external manifestation which can serve as the starting-point. A critique of this kind will confine itself to the confrontation and comparison of a fact, not with ideas, but with another fact. The only things of importance for this inquiry are that the facts be investigated as accurately as possible, and that they actually form different aspects of development vis-à-vis each other. But most important of all is the precise analysis of the series of successions, of the sequences and links within which the different stages of development present themselves.

zur Grundlage haben kann. Das heißt, nicht die Idee, sondern nur die äußere Erscheinung kann ihr als Ausgangspunkt dienen. Die Kritik wird sich beschränken auf die Vergleichung und Konfrontierung einer Tatsache nicht mit der Idee, sondern mit der andren Tatsache. Für sie ist es nur wichtig, daß beide Tatsachen möglichst genau untersucht werden und wirklich die eine gegenüber der andren verschiedene Entwicklungsmomente bilden, vor allem aber wichtig, daß nicht minder genau die Serie der Ordnungen erforscht wird, die Aufeinanderfolge und Verbindung, worin die Entwicklungsstufen erscheinen.

↓ Now Kaufman turns to the historical dimension of Marx's method:

It will be said, against this, that the general laws of economic life are one and the same, no matter whether they are applied to the present or the past. But this is exactly what Marx denies. According to him, such abstract laws do not exist ... On the contrary, in his opinion, every historical period possesses its own laws ... As soon as life has passed through a given period of development, and is passing over from one given stage to another, it begins to be subject also to other laws. In short, economic life offers us a phenomenon analogous to the history of evolution in other branches of biology ...

Aber, wird man sagen, die allgemeinen Gesetze des ökonomischen Lebens sind ein und dieselben; ganz gleichgültig, ob man sie auf Gegenwart oder Vergangenheit anwendet. Grade das leugnet Marx. Nach ihm existieren solche abstrakte Gesetze nicht ... Nach seiner Meinung besitzt im Gegenteil jede historische Periode ihre eignen Gesetze ... Sobald das Leben eine gegebene Entwicklungsperiode überlebt hat, aus einem gegebenen Stadium in ein andres übertritt, beginnt es auch durch andre Gesetze gelenkt zu werden. Mit einem Wort, das ökonomische Leben bietet uns eine der Entwicklungsgeschichte auf andren Gebieten der Biologie analoge Erscheinung ...

↓ Now the depth dimension of economic laws:

The old economists misunderstood the nature of economic laws when they likened them to the laws of physics and chemistry. A more thorough analysis of the phenomena shows that social organisms differ among themselves as fundamentally as plants or animals. Indeed, one and the same phenomenon falls under quite different laws in consequence of the different general structure of these organisms, the variations of their individual organs, and the different conditions in which those organs function. Marx denies, for example, that the law of population is the same at all times and in all places. He asserts, on the contrary, that every stage of development has its own law of population ... With the varying degrees of development of productive power, social conditions and the laws governing them vary too. While Marx sets himself the task of following and explaining the capitalist economic order from this point of view, he is only formulat-

Die alten Ökonomen verkannten die Natur ökonomischer Gesetze, als sie dieselben mit den Gesetzen der Physik und Chemie verglichen ... Eine tiefere Analyse der Erscheinungen bewies, daß soziale Organismen sich voneinander ebenso gründlich unterscheiden als Pflanzen- und Tierorganismen ... Ja, eine und dieselbe Erscheinung unterliegt ganz und gar verschiedenen Gesetzen infolge des verschiedenen Gesamtbaus jener Organismen, der Abweichung ihrer einzelnen Organe, des Unterschieds der Bedingungen, worin sie funktionieren usw. Marx leugnet z.B., daß das Bevölkerungsgesetz dasselbe ist zu allen Zeiten und an allen Orten. Er versichert im Gegenteil, daß jede Entwicklungsstufe ihr eignes Bevölkerungsgesetz hat ... Mit der verschiedenen Entwicklung der Produktivkraft ändern sich die Verhältnisse und die sie regelnden Gesetze. Indem sich Marx das Ziel stellt, von diesem Gesichtspunkt aus die kapitalistische

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ing, in a strictly scientific manner, the aim that every accurate investigation into economic life must have ... The scientific value of such an inquiry lies in the illumination of the special laws that regulate the origin, existence, development and death of a given social organism and its replacement by another, higher one. And in fact this is the value of Marx's book.'

Here the reviewer pictures what he takes to be my own actual method, in a striking and, as far as concerns my own application of it, generous way. But what else is he depicting but the dialectical method?

↓ Marx differentiates between inquiry and presentation of the results of this inquiry:

Of course the method of presentation must differ in form from that of inquiry. The latter has to appropriate the material in detail, to analyse its different forms of development and to track down their inner connection. Only after this work has been done can the real movement be appropriately presented. If this is done successfully, if the life of the subject-matter is now reflected back in the ideas, then it may appear as if we have before us an a priori construction.

Marx's methodological Introduction to *Grundrisse*, [mecw28]37:2–38:1, illustrates this distinction between research and representation in much more detail. Marx's research strategy to study society, a near-totality, exploits the fact that nothing in society can happen without some individual doing it or individuals in the past having done it. Since this is so, Marx's entry point is the concrete day-to-day activities of individuals in capitalism. This is his research method. When Marx wants to communicate his research he must begin with the inner laws themselves which led to that individual activity.

Term Paper Topic 5 Discuss Marx's methodology as explained in the Introduction to *Grundrisse*. 2013fa, 2011fa, 2009fa, 2007SP.

↓ The remark about a priori constructions refers to Hegel and his followers. Marx adds some important remarks about the relation between his method and Hegel:

My dialectical method is, in its foundations, not only different from the Hegelian, but exactly opposite to it. For Hegel, the process of thinking, which he even transforms into an independent subject, under the

Wirtschaftsordnung zu erforschen und zu erklären, formuliert er nur streng wissenschaftlich das Ziel, welches jede genaue Untersuchung des ökonomischen Lebens haben muß ... Der wissenschaftliche Wert solcher Forschung liegt in der Aufklärung der besondern Gesetze, welche Entstehung, Existenz, Entwicklung, Tod eines gegebenen gesellschaftlichen Organismus und seinen Ersatz durch einen andren, höheren regeln. Und diesen Wert hat in der Tat das Buch von Marx.“

27:1 Indem der Herr Verfasser das, was er meine wirkliche Methode nennt, so treffend und, soweit meine persönliche Anwendung derselben in Betracht kommt, so wohlwollend schildert, was andres hat er geschildert als die dialektische Methode?

27:2 Allerdings muß sich die Darstellungs-

weise formell von der Forschungsweise unterscheiden. Die Forschung hat den Stoff sich im Detail anzueignen, seine verschiedenen Entwicklungsformen zu analysieren und deren innres Band aufzuspüren. Erst nachdem diese Arbeit vollbracht, kann die wirkliche Bewegung entsprechend dargestellt werden. Gelingt dies und spiegelt sich nun das Leben des Stoffs ideell wider, so mag es aussehn, als habe man es mit einer Konstruktion a priori zu tun.

27:3 Meine dialektische Methode ist der Grundlage nach von der Hegelschen nicht nur verschieden, sondern ihr direktes Gegenteil. Für Hegel ist der Denkprozeß, den er sogar unter dem Namen Idee in ein selbst-

name of 'the Idea', is the creator of the real world, and the real world is only the external appearance of the idea. With me the reverse is true: the ideal is nothing but the material world reflected in the mind of man, and translated into forms of thought.

Note that Marx differentiates between *ideell* and *ideal*.

I criticized the mystificatory side of the Hegelian dialectic nearly thirty years ago, at a time when it was still the fashion. But just when I was working at the first volume of Capital, the ill humoured, arrogant and mediocre epigones who now talk large in educated German circles began to take pleasure in treating Hegel in the same way as the good Moses Mendelssohn treated Spinoza in Lessing's time, namely as a 'dead dog'. I therefore openly avowed myself the pupil of that mighty thinker, and even, here and there in the chapter on the theory of value, coquetted with the mode of expression peculiar to him. The mystification which the dialectic suffers in Hegel's hands by no means prevents him from being the first to present its general forms of motion in a comprehensive and conscious manner. With him it is standing on its head. It must be inverted, in order to discover the rational kernel within the mystical shell.

The comments about Hegel are followed by comments about the dialectical method in general:

In its mystified form, the dialectic became the fashion in Germany, because it seemed to transfigure and glorify what exists. In its rational form it is a scandal and an abomination to the bourgeoisie and its doctrinaire spokesmen, because it includes in its positive understanding of what exists a simultaneous recognition of its negation, its inevitable destruction; because it regards every historically developed form as being in a fluid state, in motion, and therefore grasps its transient aspect as well; and because it does not let itself be impressed by anything, being in its very essence critical and revolutionary.

ständiges Subjekt verwandelt, der Demiurg des wirklichen, das nur seine äußere Erscheinung bildet. Bei mir ist umgekehrt das Ideelle nichts andres als das im Menschenkopf umgesetzte und übersetzte Materielle.

27:4 Die mystifizierende Seite der Hegelschen Dialektik habe ich vor beinah 30 Jahren, zu einer Zeit kritisiert, wo sie noch Tagesmode war. Aber grade als ich den ersten Band des „Kapital“ ausarbeitete, gefiel sich das verdrießliche, anmaßliche und mittelmäßige Epigontum, welches jetzt im gebildeten Deutschland das große Wort führt, darin, Hegel zu behandeln, wie der brave Moses Mendelssohn zu Lessings Zeit den Spinoza behandelt hat, nämlich als „toten Hund“. Ich bekannte mich daher offen als Schüler jenes großen Denkers und kokettierte sogar hier und da im Kapitel über die Werttheorie mit der ihm eigentümlichen Ausdrucksweise. Die Mystifikation, welche die Dialektik in Hegels Händen erleidet, verhindert in keiner Weise, daß er ihre allgemeinen Bewegungsformen zuerst in umfassender und bewußter Weise dargestellt hat. Sie steht bei ihm auf dem Kopf. Man muß sie umstülpen, um den rationalen Kern in der mystischen Hülle zu entdecken.

27:5/o In ihrer mystifizierten Form ward die Dialektik deutsche Mode, weil sie das Bestehende zu verklären schien. In ihrer rationalen Gestalt ist sie dem Bürgertum und seinen doktrinären Wortführern ein Ärgernis und ein Greuel, weil sie in dem positiven Verständnis des Bestehenden zugleich auch das Verständnis seiner Negation, seines notwendigen Untergangs einschließt, jede gewordne Form im Flusse der Bewegung, also auch nach ihrer vergänglichen Seite auffaßt, sich durch nichts imponieren läßt, ihrem Wesen nach kritisch und revolutionär ist.

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↑ Marx emphasizes here that dialectics not only looks at what is, but also at what is not, at the absences. It explores how things negate themselves and how they must be criticized.

↓ Finally, from dialectic in general Marx goes over to dialectical contradictions:

The fact that the movement of capitalist society is full of contradictions impresses itself most strikingly on the practical bourgeois in the changes of the periodic cycle through which modern industry passes, the summit of which is the general crisis. That crisis is once again approaching, although as yet it is only in its preliminary stages, and by the universality of its field of action and the intensity of its impact it will drum dialectics even into the heads of the upstarts in charge of the new Holy Prussian-German empire.

Karl Marx
London, 24 January 1873

28:1 Die widerspruchsvolle Bewegung der kapitalistischen Gesellschaft macht sich dem praktischen Bourgeois am schlagendsten fühlbar in den Wechselfällen des periodischen Zyklus, den die moderne Industrie durchläuft, und deren Gipfelpunkt—die allgemeine Krise. Sie ist wieder im Anmarsch, obgleich noch begriffen in den Vorstadien, und wird durch die Allseitigkeit ihres Schauplatzes, wie die Intensität ihrer Wirkung, selbst den Glückspilzen des neuen heiligen, preußisch-deutschen Reichs Dialektik einpauken.

Karl Marx
London, 24. Januar 1873

Part I.

Commodities and Money

1. The Commodity

Moore and Aveling translate the chapter title “*Die Ware*” as “Commodities.” The plural is unfortunate, since it suggests that

the outward behavior of *commodities* will be discussed, instead of the inner structure of *the commodity*. Our translation “the

commodity” is the same as Fowkes’s.

Chapters One, Two, and Three of the first volume of *Capital* are grouped into part One. They discuss commodities and money, but not yet capital.

Section 1.1 of chapter One begins with the *surface* interactions between commodities on the market and concludes that these interactions are made possible, and at the same time are constrained, by an invisible underlying social force, namely, the labor content of the commodities. The exchange equalizes commodities, and labor is the only social substance common to the commodities. Marx was not the first economist to draw this conclusion. Marx followed here *classical economics*, which was the mainstream of economics when Marx lived.

But Marx’s next step in the argument goes beyond classical economics: Marx says that the social force governing exchange relations must be homogeneous, i.e., it can only have quantitative differences, not qualitative differences. Labor is not homogeneous, it can therefore not be this social force. This is a contradiction: on the one hand, labor *must* be the social force governing exchange because it is the only thing common to all commodities, but on the other hand, labor *cannot* be this social force because it is not homogeneous.

In order to resolve this contradiction, section 1.2 takes a detailed look at labor. This detailed investigation shows that every labor process has indeed an aspect which is homogeneous, namely, it is the expenditure of human labor-power. This leads Marx to the conclusion that labor has a double character, concrete labor which is the force manipulating the product, and abstract labor, i.e., labor as the expenditure of human labor-power. The substance of value is therefore not labor in general, but abstract labor.

After determining the substance of value, section 1.3 takes a closer look at the *form* of value and shows that the surface phenomena Marx started with are indeed generated because the production process is socially seen as the expenditure of homogeneous human labor-power. Section 1.4 asks why it is necessary to make such a roundabout inference. After all, these are our own social relations, why does not every member in society know them as a matter of course?

1.1. The Two Factors of a Commodity: Use-Value and Value (Substance of Value, Magnitude of Value)

Marx uses the word “value” in a very specific meaning, a meaning which will emerge only gradually, while the argument is being developed. Value (sometimes Marx calls it “commodity value”) is that economic relation which manifests itself in the ability of commodities

to be bought and sold on the market, but which has also other manifestations (capital, for instance, is “value in motion”). The reader should therefore not assume he or she knows from the beginning what value is. “Value” is not an ethical category. It also does not indicate a subjective valuation, i.e., it does not designate how some human being values something. Instead, it is an *economic* category. But Marx has not yet told us this. Right now the word “value” serves as a placeholder for something still to be defined.

Closely related to Marx’s concept of value is his concept of “exchange-value.” The exchange value of a commodity is its ability (and even necessity) to change ownership by buying and selling, or sometimes by direct exchange. I.e., it is one of the ways how the value of a commodity manifests itself. Exchange-value is a relation between commodities on the *market*, while value is a relation of *production*, a relation involving the labors producing the commodities.

Also the word “use-value” has a specific meaning: the use-value of a commodity is the menu of possible uses of the commodity. Although the words “use-value” and “value” both contain the word “value,” use-value is *not* a particular kind of value. In his *Notes on Wagner’s Textbook of Political Economy* [mecw24]545:1, Marx calls use-value the “opposite” of value, “which has nothing in common with value, except that ‘value’ occurs in the word ‘use-value’.”

Question 6 *The commodity presents itself to the economic agents as a thing with two different properties, use-value and exchange-value. This is the starting point for Marx’s discussion not only of the commodity itself, but from there Marx proceeds to discuss the entire ensemble of capitalist social relations. Why does the title of the first section then say that the two factors of the commodity are use-value and value, instead of use-value and exchange-value? 2011fa, 2010fa, 2008fa.*

According to the title of section 1.1, the two factors of the commodity are use-value and value. The parentheses in the title indicate that value is considered here under the aspect of *substance* and *magnitude*. An analysis of the *third* aspect of value, its *form*, is not yet on the agenda. Right now, Marx is looking at this form in order to derive substance and magnitude of value. The analysis of this form in section 1.3 will confirm that something with substance and magnitude as inferred in sections 1.1 and 1.2 indeed generates the form which Marx is observing.

Although Marx does not subdivide section 1.1 into subsections, the present Annotations divide it into four subsections, numbered 1.1.a – 1.1.d, and use additional unnumbered subtitles in order to delineate the different steps in Marx’s argument. Those subtitles which do not come from Marx are given in square brackets.

Subsection 1.1.a (45–46:1) briefly surveys the use-value of things.

Subsection 1.1.b (46:2–47:0) begins with the observation that in addition to use-value, the commodity has “exchange-value”—in other words, instead of *using* a commodity the owner also has the option to *exchange* it. Then Marx takes a closer look at the exchange relations between commodities, in order to conclude that the commodities’ ability to be exchanged, i.e., their exchange-value, is the manifestation of a deeper-lying property of commodities, which he calls their “value” even before he has developed what it is.

In subsection 1.1.c (47:1–48:3), Marx focuses on the question: “what is value?” Just as a detective makes inferences about what actually happened from the traces left at the scene of the crime, so will Marx make inferences about the “substance” of value from the “forms” under which the economic agents deal with value. This so-called *retroductive argument* leads to the conclusion that the substance of value is *congealed abstract labor*.

1. The Commodity

Subsection 1.1.d (48:4–51:0) discusses a different aspect of value: not its substance but its magnitude; not why products must enter the market and be exchanged, but how the exchange proportions are determined which they encounter on the market.

1.1.a. [The Commodity as Natural Object and Use-Value]

The goal of Marx’s book *Capital* is to analyze the fundamental social relations in capitalism, which, in Marx’s view, are the social relations having to do with *production*. Since everything that happens in society is done by individuals, one might think that an analysis of society should begin with the individuals, in order to derive the social relations from what we know about the individuals. Modern mainstream economics is doing exactly this: it begins with *individual* preferences and endowments, and production functions describing technology, and derives prices (which are *social* relations) from them. Such an approach is called “methodological individualism.” Marx’s theory, which stands in the tradition of classical economics, is *not* a methodological individualist theory.

How can one analyze society? Since social relations are invisible, one cannot observe them directly but one can only observe their *effects*. One must observe individual activity in the society one wants to study, and infer the invisible social structure making this activity necessary and possible.¹ This is the procedure necessary in every society. Marx follows this procedure. Marx begins with the commodity because much of the individual activity in capitalism having to do with the economy is the buying and selling of commodities. Let us see how Marx himself begins and how he justifies his starting point:

[The Commodity Form of Capitalist Wealth]

45:1 The wealth of those societies, in which the capitalist mode of production reigns, presents itself as an “immense heap of commodities.”¹

¹ Karl Marx, *Zur Kritik der Politischen Oekonomie*, Berlin 1859, p. 3.

↑ This reference is to *Contribution*, 269:1.

49:1 Der Reichtum der Gesellschaften, in welchen kapitalistische Produktionsweise herrscht, erscheint als eine „ungeheure Warensammlung“,¹ ...

¹ Karl Marx, „Zur Kritik der Politischen Oekonomie“, Berlin 1859, pag. 3.

Ben Fowkes, the translator in [Mar76], translates “Warensammlung” as “collection of commodities.” This is unfortunate, since “collection” connotes a systematic purposeful act. Marx does not want to imply that people are *collecting* commodities. His starting point is the observation that almost *all* elements of material wealth are

commodities. He uses the word “*Sammlung*” as synonymous to “*Ansammlung*.” The Moore-Aveling translation “accumulation” is better here. The adjective “*ungeheure*” is colloquial German, it literally means “spookishly large.” This informal adjective sends the message that also the noun “*Warensammlung*” should be

viewed informally, not as a systematic collection but as an observable fact about which we do not yet know how it came about. Our translation tries to create the same effect by mixing the levels of formality as well: it uses the more formal “immense” (immeasurably large) alongside the informal “heap.”

We will discuss this sentence word for word, first “wealth,” then “capitalist mode of production,” “reigns,” “commodity,” and “presents itself.”

¹ Bhaskar says this in *Possibility of Naturalism*.

[Wealth:] Wealth is any exterior thing (the word “exterior” denoting everything other than the human himself or herself) that enhances human life. Marx means here *material* wealth, i.e., *objects* which enhance human life.

Nowadays one often reads that the subject of economics is scarcity. Marx differs in two respects: he does not call it “economics” but “political economy,” and he does not begin with scarcity but with wealth. In *Grundrisse*, the first draft of *Capital*, he says on p. 228:1: Political economy has to do with the specific social forms of wealth, or rather of the production of wealth.

Die politische Ökonomie hat es mit den spezifischen gesellschaftlichen Formen des Reichtums oder vielmehr der Produktion des Reichtums zu tun.

Exam Question 9 *Wouldn't scarcity be a better starting point than wealth for understanding how a given society functions? When there is scarcity, this means there is a need to act, whereas wealth consists of dead things. Scarcity allows us to discover what drives society, wealth does not.* [2013fa](#), [2012fa](#), [2010fa](#), [2008fa](#), [2005fa](#), [2003fa](#), [1997sp](#), [1997WI](#), [1996ut](#), [1995ut](#).

One usually thinks of wealth as the wealth of individuals, as the amount of things owned by an individual. This is a superficial view. Wealth is intrinsically social:

- Certain aspects of wealth cannot be attached to individuals. Public parks or beaches, clean air, lack of noise or crime, a livable city design, convenient public transportation, are all elements of wealth which either everybody or nobody in the given society has.
- Private wealth, which only benefits one or a few individuals, has a social dimension as well. A rich person not only has access to *things* but, more importantly, is able to make others work for him or her. See [609:1–610:1](#). Others in society must *produce* the things a wealthy person consumes.

Marx does not speak of wealth of individuals, but wealth of societies. He follows the tradition of Classical economics. For instance Adam Smith's book [\[Smi65\]](#) *An Inquiry into the Nature and Causes of the Wealth of Nations* is about the wealth of *nations*. Here in the first sentence of *Capital*, Marx speaks not of the wealth of nations but the wealth of *societies*. Marx will say later that in capitalism, the wealth of nations is inversely related to the wealth of its people.

Question 10 *Describe a situation where the wealth of a nation (define this) is unrelated with the wealth of the people living there—or perhaps even opposite to it, as Marx says in 802:1 and 938:1.* [1997sp](#), [1995WI](#).

It should also be noted here that Marx uses the word “wealth” not only for the *abundance* or *extravagance* of things enhancing human life; *anything* which enhances human life, however modest it may be, is by definition part of society's wealth.

[Capitalist Mode of Production:] At this point, the phrase “capitalist mode of production” is only a placeholder, a name for the topic to be investigated. This name, however, is carefully chosen. It reflects Marx's understanding that capitalist society is characterized by its organization of *production*. It is one of the basic tenets of Marx's theory of society that the relations which people have with each other and with nature in *production* has a profound influence on all the other social relations.

1. The Commodity

Marx's *Capital* offers an explanation of those aspects of capitalism which pertain to the *economy*: money, wage-labor, economic growth, globalization, business cycle, the coexistence of wealth and poverty, the persistence of economic underdevelopment, etc. Marx's *Capital* does not give an explanation of capitalist democracy, international political relations, or the recurrence of wars. Occasionally it is possible to draw inferences from the economic structure about the political structures necessary to maintain this economic structure, compare 76:6/o, 94:4/o, 178:1. This information about the requirements which the state must meet in order to sustain capitalist economic relations is not a theory of the state itself, because it does not tell us how the state meets these requirements.

The reference to the "capitalist mode of production" in the very first sentence also indicates that the subject of this chapter is not some historical "simple commodity production" or a utopian "fair and equitable" society, but really existing capitalism. Marx's *Capital* is not a blueprint for an ideal economy. It is an attempt to gain a thorough understanding of *capitalism*. This does not mean Marx approves of capitalism. Marx wants to understand capitalism in order to know how it can be overcome.

[Reigns:] The word "reigns" has two meanings. One the one hand it simply means: where the capitalist mode of production prevails, where it is the main form of production. However, Marx's word is not "*vorherrscht*" (prevails) but the shorter and stronger "*herrscht*," whose principal meaning is "to rule." Perhaps Marx wanted to express one of the following points with this:

- All relations of production known today, whether capitalist or not, can be said to "rule," because the social relations having to do with *production* play a fundamental role among the broader social relations.
- If the capitalist mode of production comes in contact with other modes of production, it tends to corrode them and supplant them by capitalist relations. In other words, the capitalist mode of production rules not only over non-economic relations but also over non-capitalist economic relations.

The French edition says "reigns," while the Moore-Aveling translation says "prevails." In a letter to Engels on April 2, 1858, Marx uses the unambiguous

transitive verb "dominates" (*beherrscht*), but the subject is not capitalism but exchange: "presupposes . . . the elimination . . . of all undeveloped,

pre-bourgeois modes of production, which are not dominated to their full extent by exchange." [mecw40]298:5/o

[Commodity:] A commodity is *something produced for sale or exchange*. This is the definition needed in order to follow the argument. Marx himself does not even bother defining commodities, he thinks it is obvious what he is talking about.

Marx's intended meaning of the German word "*Ware*" is more obvious than that of the English word "commodity." In English business parlance, the word "commodities" is used for products which are available from many suppliers, and which are standardized enough so that there is no reason, apart from price, to prefer one supplier over another. Marx does *not* mean the word in this way. For him, a commodity is everything, whether raw material or finished good, whether a specialized brand name article or a staple, that is produced for sale.

Exam Question 11 *What is a commodity? Marx does not give the definition of a commodity but an analysis. How would you define the thing he analyzes? (The answer can be given*

in one sentence.) 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 1999SP, 1998WI, 1997sp, 1996sp, 1995ut, 1995WI.

[Presents Itself as an Immense Heap of Commodities:] Two different assertions are woven together in this clause:

- In capitalist society, wealth takes the form of commodities. Almost all the products which make up the riches of capitalist society are produced for and traded in markets. Of course, this is not the only thing we need to know to understand capitalism. The entire book is devoted to a more detailed investigation of the social relations governing capitalist production. But whatever else capitalist production is, it is *also* production of commodities.
- This is *obvious*, everyone is aware of it, and the members of capitalist society handle commodities and purposefully treat them as commodities every day. We will see later that other important aspects of capitalist social relations are not as directly visible as the fact that most products are commodities.

The word that is translated here as “presents itself” is in German “*erscheint*,” i.e., literally, “appears.” Marx conscientiously uses the word “appear” whenever he discusses the manifestation of some invisible background on an accessible stage. Here this invisible background is the production of social wealth. Much of what is done in any society has to do with the production and disposition of wealth. In capitalism, this wealth enters the everyday interactions between individuals mainly in the form of commodities.

Fowkes translates “*erscheint*” with “appears,” i.e., he, like Marx himself, emphasizes the first assertion; by contrast, the Moore-Aveling translation (“presents itself”) and the French

translation [megaII/7]19:1 (“s’annonce comme”) emphasize the second assertion. Earlier versions of this sentence in Marx’s other publications or manuscripts *separate* these two assertions more

clearly than the condensed formulation here in *Capital*. Compare *Contribution*, 269:1 and *Grundrisse*, 252:2.

Question 15 Give examples of alternative forms, other than the commodity form, taken by material wealth when it enters the everyday social interactions between individuals member of this society (either in non-capitalist societies, or non-commodity wealth in capitalist societies). 2008fa, 2001fa, 1997sp, 1997WI.

[First Sentence as a Whole:] The sentence “wealth presents itself as an immense heap of commodities” is not a critique of wealth itself but of the social form taken by wealth in capitalist society. Wealth has become a heap of things, which may have only quite extraneous relations to the individuals availing themselves of this wealth. The ownership of money or commodities does not require any essential relation between the owner and the object—while wealth of sheep, for instance, in earlier societies was only possible if the owner was a capable shepherd; see *Grundrisse* 154:2.

Question 20 Describe a situation in daily life in which the extraneous character of the relation between wealth and wealth holder becomes an issue. 2008fa, 2004fa, 2001fa, 1998WI, 1995WI.

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Question 21 Name some elements of material wealth which even in modern capitalist society are not for sale. [1995WI](#).

[Invitation to Begin the Analysis of Capitalism with the Commodity]

All this was a discussion of the first sentence only, in German it is even only the first half of the first sentence. It is time to go on. Marx uses the abundance of commodities as justification for beginning the analysis of capitalism with the commodity. This might seem an odd approach. One does not begin the study of chemistry with the materials that are most abundant (rocks and dirt), but the materials that are most basic (the chemical elements). Marx chooses commodities as starting point because people in capitalism buy and sell commodities on a daily basis. By studying the commodity, Marx studies an aspect of the *everyday practical activity of individuals* living in capitalism. From this activity Marx will draw inferences about the capitalist social relations in which these individuals are embedded.

↓ Before announcing the starting point he has chosen, Marx narrows his point of view by one step: instead of looking at all commodities together, he looks at the *individual* commodity. This, too, follows from by his approach to unravel capitalist relations by first looking at the practical behavior of individuals in capitalism. While economists measuring national income deal with all commodities together, the typical individual doing what is necessary to survive in capitalism deals with commodities one by one. Marx is analyzing the activities of this typical individual.

The individual commodity appears as the *elementary form* of this wealth.

... die einzelne Ware als seine *Elementarform*.

It is grammatically unambiguous in French and German that “its” refers to “wealth” and not to “heap of commodities.” Eden and Cedar

Paul’s translation in [Mar30, p. 3] “The wealth ... takes the form of ‘an immense accumulation of commodities’, wherein individual

commodities are the elementary units” is therefore incorrect.

↑ Note that “appears” has two different meanings in the sentences “wealth appears as an immense heap of commodities” and “the single commodity appears as the elementary form of wealth.” In the first sentence, “appears as” means: “takes the social form of” (but, as I just argued, bears the connotation “presents itself as”). In the second sentence, the formulation “appears as its elementary form” is synonymous to “is its elementary form of appearance.”

Question 25 Why does Marx in 125:1 state that the individual commodity is the elementary form of capitalist wealth instead of simply saying that the commodity is the elementary form of capitalist wealth? What is the contribution to this statement of the attribute “individual” (in German “*einzelne*”)? Should it be translated as “individual” (as is done here) or as “single” (as in the Moore-Aveling translation)?

Question 26 Is Marx correct to begin his analysis of capitalism with the individual commodity? Isn’t he losing too much if he looks at a commodity in isolation from the other commodities? Isn’t a commodity what it is exactly because of the other commodities against which it can be exchanged?

This brief second sentence (or, in German, the last part of the first sentence) also claims that the individual commodity is the *elementary* form of capitalist wealth. The word “elementary” (as in “elementary algebra”) means: the commodity form is both *simple* and *basic*.

- The commodity form is *simple* because a one-line sentence suffices to define it. A commodity is anything produced for sale or exchange. In the *Introduction* to *Grundrisse*, [mecw28]37:2–38:1, Marx says that the mind has to begin with such simple categories in order to assimilate the world, even though these simple categories may not refer to the most fundamental relations in reality. In his *Notes on Wagner*, [mecw24]545:2/o, Marx calls the commodity “the simplest economic concretum,” i.e., it is not an abstract concept but something concrete that one can touch, and in addition it is the *simplest* concrete economic entity. Instead of saying that in capitalism, most wealth takes the form of commodities, it would also have been correct to say that most labor takes the form of wage-labor—but this cannot be the entry point because the definition of wage-labor is not simple, it presupposes the definition of several other economic categories first.
- The commodity form is *basic* in the sense that other forms of wealth can be reduced to, or are developments of, the commodity form. In the preface to the First edition of *Capital*, p. 7:3/o, Marx brings a fitting metaphor: the study of the commodity is just as important for an understanding of the capitalist economy as the study of a *single undifferentiated cell* is for an understanding of the human body. While it is obvious that the commodity is simple, it is not quite as obvious that it is basic. Presumably, Marx makes this remark already here, long before he has hope to prove it, in order to make his entry point more plausible.

The commodity form is *elementary* but commodity relations are not the most central relations in capitalism. The central relations are the relations between capitalists and wage-laborers, which are class relations that cannot be understood in terms of commodities, see . The entrance door used by Marx to understand capitalism is therefore not in the center of the building but on the side.

Exam Question 27 *If Marx wanted to start his book with first principles, why did he pick the analysis of the commodity and not the analysis of the production process or the analysis of value?* 2013fa, 2012fa, 2011fa, 2008fa, 2005fa, 2004fa, 2001fa, 1995ut, 1995WI.

The next sentence makes explicit what was already implicit in the preceding passage:

The analysis of the commodity will therefore be the starting point of our investigation.

Unsere Untersuchung beginnt daher mit der Analyse der Ware.

This sentence contains the word “therefore,” i.e., Marx is drawing an inference from what was just said about the commodity. Regarding the character of this inference, textual evidence is ambiguous.

- The Moore/Aveling translation supervised by Engels says that the analysis of the commodity “*must* be the starting point,” which is stronger than the formulation “*will* be the starting point” in all four German editions and also the French edition (my emphasis both times). The *necessity* to begin with the commodity cannot be deduced from the things said so far—although it follows from Marx’s further analysis of capitalism. If Marx’s analysis of the capitalist relations of production is correct, then the starting point for understanding them is necessarily the commodity.
- In the formulation in the German edition, “will be the starting point,” Marx uses what was just said as grounds to begin his book with the commodity, without claiming

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that this is the only possibility. It is an invitation: if commodities are so prevalent in capitalist society, if they are simple to define, if people knowingly treat commodities as commodities, and if other economic relations in capitalism are also commodity relations, then an analysis of the commodity looks like a good place to begin the investigation of capitalism. Therefore let's do it.

The two (in German) or three (in English) sentences, which we read so far, give a brief justification of the starting point chosen by Marx. Two final remarks before we go on.

(1) Marx does not consider the starting point arbitrary. Marx thinks that certain things must be explained before others, for instance, that it is necessary to explain the commodity before one can explain capital. In the background of this is the understanding, elaborated in Critical Realism, that reality is stratified, i.e., has more than one layer. Certain real things are built on top of other things (which are equally real). Somehow, the commodity is "simpler" than money, and money "simpler" than capital. In *Grundrisse*, 190:2, Marx writes:

In order to develop the concept of capital, it is necessary to begin not with labor but with value or, more precisely, with exchange-value already developed in the movement of circulation. It is just as impossible to pass directly from labor to capital as from the different human races directly to the banker, or from nature to the steam engine.

Um den Begriff des Kapitals zu entwickeln, ist es nötig nicht von der Arbeit, sondern vom Wert auszugehen, und zwar von dem schon in der Bewegung der Zirkulation entwickelten Tauschwert. Es ist ebenso unmöglich, direkt von der Arbeit zum Kapital überzugehen, als von den verschiedenen Menschenrassen direkt zum Bankier oder von der Natur zur Dampfmaschine.

(2) Despite Marx's justifications making his starting point plausible, it is neither necessary nor possible to furnish conclusive proof, already at the beginning, that this is where one must begin. In order to verify that this is a good starting point, one must have results, but we are just at the beginning, i.e., we do not yet have any results. As long as the reader cannot take issue with the content of the writer's arguments, he or she should not interrupt the writer at the beginning with the question "why do you begin here?"

Exam Question 29 *Would it have been possible to start the book Capital with a more common-sense definition of capitalism, such as, capitalist production is production for profit?* 2013fa, 2012fa, 2008fa, 2005fa, 2003fa, 1997ut, 1996sp, 1995WI.

With this brief justification why it makes sense to begin with the commodity, the first paragraph comes to an end. In the next paragraph, the analysis of the commodity begins without further ado. It will take up the whole chapter One.

[Every Commodity is a Useful Thing]

In his *Notes to Wagner*, [mecw24]544:6/o, right after justifying the commodity as his point of departure because it is the simplest economic concretum, Marx says that the first aspect of the commodity investigated in *Capital* is the "form of appearance" of the commodity. Presumably he means by this the shape in which the commodity enters the practical activity of the economic agents. ↓ Individuals are dealing with commodities because commodities are objects they want or need for their lives.

45:2 The commodity is at first an exterior object, a thing, which by its properties satisfies human wants of one sort or another.

49:2 Die Ware ist zunächst ein äußerer Gegenstand, ein Ding, das durch seine Eigenschaften menschliche Bedürfnisse irgendeiner Art befriedigt.

1.1. Use-Value and Value

Fowkes translates this sentence as: “The commodity is, first of all, an external object, a thing which through its qualities satisfies human needs of whatever kind.” The formulation “first of all” can be misunderstood to mean that this is the main property of the commodity, that the other properties of the commodity are secondary. This is not Marx’s intention. Even if one interprets the formulation “first of all” as a matter of order in the representation, not a matter of importance, it wrongly evokes the image that we could say many things about the commodity, but

this is what we choose to say first. However we do not have this choice: the other things cannot be said without saying this thing first, they should therefore not be imagined to be coexistent with this first thing. The “all” of which this is the “first” do not yet exist. And looking at the end of the sentence, Fowkes’s formulation “of whatever kind” collapses two steps into one: (1) the commodity satisfies some want, and (2) it does not matter which want it satisfies. Step (2), the *indifference* towards the kind of want, comes only in the next sentence. But in defense of Fowkes one could say that the

French translation [megaII/7]19:2/o, which was closely edited by Marx himself, collapses these two steps as well. The Moore-Aveling translation is: “The commodity is, in the first place, an object outside us, a thing which by its properties satisfies human wants of some sort or another.” The formulation “in the first place” makes this first step too static: it gives it a permanent “place” instead of formulating it as a transient point of entry, which one has to pass through in order to get to the other things.

Although a commodity is more than just a useful object—the reader should think of it as a useful object *produced for exchange*—the social connections under which the commodity is produced are not directly visible. The first thing the practical agents are likely to notice when they hold a commodity in their hands is that it is a useful object. This is where one has to begin if one wants to know what the commodities are for the practical agents, and what these agents therefore do with the commodities. Despite its familiarity, the concept of a “useful” object is not entirely trivial. Marx uses almost a page in order to split the concept of a useful object into its constituent elements. The remainder of the current paragraph looks at human wants and needs, in order to clarify what “useful” means. The next paragraph discusses how this usefulness modifies the object, i.e., how the economic agents act differently if they interact with a *useful* object rather than just any exterior object. Finally, the paragraph after this looks at the role which such useful objects play in society.

Question 34 How can an exterior object be useful?

The nature of such wants, whether they arise, for instance, from the stomach or from imagination, makes no difference.²

Die Natur dieser Bedürfnisse, ob sie z.B. dem Magen oder der Phantasie entspringen, ändert nichts an der Sache.²

“*Phantasie*” is translated here with *imagination*. A commodity which has no use whatever, but people think it does, has a use-value. The usual translation “stomach or

fancy” suggests a different dichotomy, namely whether the fulfilment of this demand is necessary for survival. Since Marx denies that demand has a lasting

influence on price, he is unlikely to think that the *kind* of demand matters.

↑ Marx does not mean to say here that all human wants are equal. He merely says that the nature of the want which a commodity satisfies has no bearing on the activity of those producing or trading commodities. Commodity relations are use-value blind. Commodity owners, in their interactions with other commodity owners, do not distinguish between use-value that satisfy some basic needs, and use-value not immediately necessary for human survival. The only criterion that matters is whether the product can be sold at a favorable price. (Later Marx will use the formulation that market relations *abstract* from use-values.)

Because of this indifference, the commodity form can become the general form of wealth only in societies which have achieved material abundance. Only in the last few centuries has

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productivity become high enough that society was able to “afford” to regulate the production and distribution of all its wealth through a social framework which is *indifferent* towards the needs satisfied by the products. Marx says something to this effect in his *Introduction* manuscript, p. [mecw28]41:2–42:0. Even today, some branches of production (education, roads, health care) are exempted from the commodity form because the commodity form has socially undesirable ramifications. Increases in wealth and productivity allow more and more of such services to be “privatized.” However today’s environmental emergency may force society to reverse this indifference again and treat basic needs differently than dispensable needs.

Question 35 *Using modern experience, describe some implications, good or bad, of the indifference of market relations towards the nature of the needs which the commodity satisfies. 2008fa, 2005fa, 1998WI, 1996ut, 1995WI.*

↓ The indifference of market relations regarding the character of the needs provides a social sounding-board for human curiosity, which finds unnecessary goods more exciting than necessary goods. The Barbon quote in footnote 2 observes that most exterior objects are not needed but desired. Barbon sees nothing wrong with this.

² “Desire implies want; it is the appetite of the mind, and as natural as hunger to the body . . . The greatest number (of things) have their value from supplying the wants of the mind.” Nicholas Barbon [Bar96, pp. 2, 3]

² „Verlangen ist Bedürfnis; es ist der Appetit des Geistes, und so natürlich wie Hunger für den Körper . . . die meisten (Dinge) haben ihren Wert daher, daß sie die Bedürfnisse des Geistes befriedigen“. Nicholas Barbon [Bar96, pp. 2, 3]

The First edition [megaII/5]17:2, Second edition [megaII/6]69:2/o, Third edition [megaII/8]63:2/o, and Fourth edition [megaII/10]37:2/o give the Barbon quote only in English, not in German. The French edition [megaII/7]19:1/o gives the Barbon quote in French: “Le désir implique le besoin.” The German translation in MEW is therefore *not* from Marx or Engels. This is my justification for changing the MEW text “*Verlangen schließt Bedürfnis ein*” into “*Verlangen ist Bedürfnis*.” The first of the two sentences quoted by Marx, the sentence

before the ellipsis, was taken by Barbon verbatim from his earlier work *Discourse of Trade* [NB90, p. 14/5]. The entire sentence in this earlier work says: “Wares, that have their Value from supplying the Wants of the Mind, are all such things that can satisfy Desire; Desire implies want; it is the appetite of the mind, and as natural as hunger to the body.” Elsewhere in the *Discourse of Trade*, on p. 13:3, Barbon uses the words “Necessities” and “Wants” interchangeably. I.e., translating “wants” with “*Bedürfnis*” is correct. Barbon argues against the

conception that the difference between want and desire is that one is necessary and the other frivolous. Barbon argues that a desire is a want of the mind, not the body. The things desired are not extra on top of the things wanted, but they are indeed things wanted—wanted by a different instance than the things usually called “wants;” but wanted nonetheless. This is presumably the thought behind Barbon’s formulation “desire implies want” (namely a want arising from a different origin).

↑ In modern English, the word “want” has the same meaning as Barbon’s word “Desire:” the wish to have things that are not strictly necessary. (“Do you need it or do you want it?”) For a correct understanding of footnote 2, the reader must keep in mind that, for Barbon, the word “Want” signified the same thing as the word “Need” in modern English. Furthermore, Barbon does not distinguish between value, use-value, and exchange-value. His word “Value” designates what Marx would call “use-value.” Therefore, translated into modern English, the Barbon quote reads: “Desire is need; it is the need of the mind, and as natural as hunger to the body . . . The greatest number (of things) have their use-values from supplying the needs of the mind.” Barbon argues that wants and desires are experienced equally,

and Marx quotes him here because Marx is discussing the experiences and motivations of individual agents.

↓ The next sentence in the main text clarifies that *means of production* are *use-values*. They satisfy human wants *indirectly*.

Nor does it matter here *how* the object satisfies these human wants, whether directly as a means of living, i.e., an object of gratification, or indirectly as means of production.

Es handelt sich hier auch nicht darum, *wie* die Sache das menschliche Bedürfnis befriedigt, ob unmittelbar als Lebensmittel, d.h. als Gegenstand des Genusses, oder auf einem Umweg, als Produktionsmittel.

To those handling commodities either in the market or in production, it does not matter whether the commodity satisfies the needs of the stomach or the needs of human imagination, whether it satisfies them directly as means of consumption or indirectly as means of production. The apposition that means of living are objects of gratification is an echo of the first clarification (stomach or imagination): people do not consume food because this is necessary for their survival but because it tastes well. This is an extension of Barbon's thoughts quoted in the footnote.

Means of consumption and means of production are very different from each other. Means of consumption give individual gratification, means of production do not. Means of consumption can be used individually, means of production can only be used in a social context. Despite these differences, in capitalist society, means of consumption and means of production are both traded as commodities, the only difference being that they have different use-values.

It is necessary to add here a remark how this sentence should *not* be translated. In the Moore/Aveling translation, this last sentence begins with "neither are we here concerned to know how" instead of "nor does it matter here." Also the French edition [megaII/7]19:2/o has the word "savoir" (to know) in this sentence. These translations are in error. The reference to "our concerns to know" is out of place. Marx just told us what matters and what does not matter for producers and traders of commodities in capitalism. He did not make an announcement of the topics he chooses to discuss here, but he is focusing on individual practical activity in capitalism, in order to draw conclusions about the social relations underlying this activity. In other words, this sentence is meant as an ontological statement, whereas the Moore/Aveling and French translations convert it into an epistemological statement. Bhaskar has given a name to this shift from an ontological into an epistemological perspective, he calls it the "epistemic fallacy." It is a form of idealism, since it shifts all the activity into the head and does not see the activity in the world. Fowkes's translation has it right this time, but similar errors appear many other times in both the Fowkes and Moore/Aveling translations. Marx's formulations usually leave no doubt that he is talking about the ontology. Only in rare occasions will one find Marx himself formulating ontological facts epistemologically.

Question 36 Give other examples where an ontological statement made by Marx is mis-translated as an epistemological statement, and give examples where Marx himself formulates ontological facts epistemologically.

Marx's observation that the social powers of the commodity are indifferent towards the nature of the use-values take his analysis into a quite different direction than the neoclassical utility theory which has become the mainstream in modern economics. Had Marx foreseen how entrenched the "subjective" concept of value would become (which *does* link the value of a thing to the needs it satisfies), he would probably have said more about it throughout

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Capital. Here are a few places where he addresses issues connected with the subjective concept of value:

- A brief remark about the disutility of labor in footnote 16 to paragraph 56:2 in section 1.2.
- The paragraph in the First edition [megaII/5]38:1 (which did not make it into the later editions) about commodity relations not being built on the use-values of the commodities.
- Marx's criticisms of Jeremias Bentham (see for instance footnote 63 to paragraph 604:2/oo in chapter Twenty-Four) are criticisms of the foundations of modern neo-classical utility theory.

Although Marx is right to emphasize here, at the very beginning of the investigation, that the social powers of commodities have nothing to do with their use-values, we will get to know later a few important cases where use-value *does* have economic implications.

Question 37 *There are a few cases where the use-value of a commodity has economic significance in capitalism. Name three such cases.*

[Properties of Useful Exterior Things] The next paragraph looks at the commodity as a “useful thing.”

45:3/o Every useful thing, such as iron, paper, etc., is to be looked at under two aspects: *quality* and *quantity*.

49:3/o Jedes nützliche Ding, wie Eisen, Papier, usw., ist unter doppeltem Gesichtspunkt zu betrachten, nach *Qualität* und *Quantität*.

↑ Things differ not only by quality but also by quantity. By “quality,” Marx means those characteristics which distinguish different kinds of things. This is a different meaning of the word “quality” than today’s colloquial use. Marx uses here the philosophical definitions of quality developed by Kant and Hegel. Besides quality, things also have quantity, location, and time. A change in the quantity, location, or time of a thing does not change the thing itself. But quantity, location, and time do matter for how useful the thing is. If one looks at useful things, therefore, quality *and* quantity, location and time are important.

And since the thing gets a social dimension through its usefulness, also its quality and quantity separately get social dimensions. ↓ The social dimension of the *quality* of useful things becomes apparent if one looks how the usefulness is anchored in the properties of the thing itself. The same thing can give rise to many different uses, which may not be obvious but must be discovered:

Every such thing is an assemblage of many properties, and can therefore be useful in various ways. The discovery of the different aspects of things and therefore of their manifold uses is a historical deed.³

Jedes solche Ding ist ein Ganzes vieler Eigenschaften und kann daher nach verschiedenen Seiten nützlich sein. Diese verschiedenen Seiten und daher die mannigfachen Gebrauchsweisen der Dinge zu entdecken ist geschichtliche Tat.³

↑ How can a thing have properties which are not obvious but must be discovered? Without saying so, Marx addresses here both Kant and Hegel. According to a throwaway remark of Marx’s in 67:2/o, Marx believes that things have immanent properties which manifest themselves in their relations with other things. The immanent properties correspond to Kant’s

thing in itself, while the relational manifestations correspond to Kant's phenomena. (Here I am looking at Kant through the lens of [Lan98] and another a good source seems to be [McW13].) Marx considers the use-value of a thing to be the relational manifestation of the immanent properties of the thing. While Kant says that phenomena are visible but the immanent properties of exterior things are for ever hidden to humans, Marx's answer to Kant is that the phenomena are not immediately visible but must be discovered through historical activity, and that the immanent properties are not absolutely inaccessible but reveal themselves when humans practically interact with the things. It is also a secret critique of Hegel's *Logic*. In Hegel's system, the properties of things are more basic than the things themselves. Marx turns it around; he holds the more common-sensical view that the existence of the things is basic. The properties slumber inside the things and must be awakened through interactions with them.

The example in footnote 3 illustrates the importance of this historical process of discovery:

³ "Things have an intrinsic virtue" (this is Barbon's special term for use-value) "which in all places have the same virtue; as the loadstone to attract iron" [Bar96, p. 6]. The property which the magnet possesses of attracting iron, became of use only after discovery, by means of that property, of the polarity of the magnet.

³ „Dinge haben einen intrinsick vertue“ (dies bei Barbon die spezifische Bezeichnung für Gebrauchswert), „der überall gleich ist, so wie der des Magnets, Eisen anzuziehen“ [Bar96, p. 6]. Die Eigenschaft des Magnets, Eisen anzuziehen, wurde erst nützlich, sobald man vermittelst derselben die magnetische Polarität entdeckt hatte.

↑ Even though the quality of the things remained unchanged over time and place, the uses made by humans of these things do change and have their own history. The magnet's ability to attract iron, which has been known for centuries, was for a long time a mere curiosity. The main use of magnets was not their ability to attract iron, but the *compass*. There is no iron at the North Pole, and the North Pole does not attract the compass needle, it only turns it. Presumably, Marx's reference to magnetic polarity is a reference to the compass.

The quantity gets a social dimension too. The quantities of useful things must be communicated; for this, socially accepted *measures* are needed.

Just like the notions of quality and quantity, also the notion of measure is a deep concept. Hegel's definition of quantity needs an amendment (or negation) because not everything is available in all quantities. Elephants are always big and mice always small compared to humans. To do justice to this, Hegel introduces the concept of "measure" for the *right* quantity for a given quality.

For Hegel, the measures, just like the qualities, are immanent to the things. In Marx's paradigm, not only the qualities but also the measures have a social dimension:

So is also the establishment of social *measures* for the *quantities* of these useful objects.

So die Findung gesellschaftlicher *Maße* für die *Quantität* der nützlichen Dinge.

The German word translated here (and also in the Moore-Aveling translation) with "establishment" is "*Findung*," literally "finding," which connotes both "discovery" and "establishment." The Fowkes translation says "invention (*Erfindung*)," which overemphasizes the connotation of "establishment" at the expense of "discovery." The finding of a

social measure has an element of establishment; society has to agree on something which is convenient for practical activity. But the process which Marx calls "finding of a social measure" also includes the convention how the quantity should be measured (by volume or by weight or by area etc), which cannot be established by agreement but is given by social

practice. Both Fowkes and Moore-Aveling say "socially recognized standards of measurement" instead of "social measure." This is imprecise. Social *recognition* is only one part of sociality. It is called a "social measure" also because of the social practice for which it serves as a *measure*.

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Since the qualities of the useful things are different, they are also measured in different ways. In *Contribution*, 269:2, Marx gives examples:

Different use-values have different measures appropriate to their bodily characteristics; for example, a bushel of wheat, a quire of paper, a yard of linen.

Ihrer natürlichen Eigenschaften gemäß besitzen verschiedene Gebrauchswerte verschiedene Maße, z.B. Scheffel Weizen, Buch Papier, Elle Leinwand, usw.

↑ The socially evolved uses of the commodities determine not only the measuring *units*, but also whether the object is measured by weight, volume, length, energy content, etc.

Usually one thinks of a measuring unit as an arbitrarily defined quantity, to which all other quantities are compared, as a so-called “numerator.” Marx by contrast says that measures must be “found” or “discovered.” If this is true, why are there then so many competing measures?

The diversity of these measures of commodities originates in part from the diverse nature of the objects to be measured, and in part from convention.

Die Verschiedenheit der Warenmaße entspringt teils aus der verschiedenen Natur der zu messenden Gegenstände, teils aus Konvention.

For instance, the “right” length measures for humans without tools are between 1 mm (because things whose measurements differ by less than 1 mm can be considered equally big for most practical purposes), and miles (a distance appropriate for measuring how far a human can walk in a day). But the choice which distance should be taken in this range, be it km, yards, or inches, is up to convention. (Marx says here similar things as Barbon said in 1790.)

Question 42 *Are there things which do not have a quantity? Are there things which have more than one quantity?*

Let us take stock where we are. Marx looked *separately* first at the *wants* satisfied by exterior objects, and then at the *objects* satisfying these wants. (Both the wants and the modes of their satisfaction already show the fingerprints of society.) In the next step, Marx will look at the unity between the objects and the wants they satisfy.

Question 43 *A want is a relation between humans and objects. In order to better understand the use-value of objects, Marx first looks at the wants and at the objects separately, and then he locates the use-value in the unity between object and want. This is not just a terminological convention but Marx understands it as a real process. Give an example where this real process can be observed in action.*

[Society Rewards the Thing for its Usefulness by Giving it the Status of Use-Value] We just saw how the combination of an exterior thing with human wants changes the way we have to look at the thing. The thing acquired social relational qualities and also social measures. But the usefulness of things also changes the humans and their society, the thing is now integrated in society.

Marx will discuss this aspect in the next paragraph, but some of his earlier formulations already foreshadowed these issues. Marx called the commodity an “exterior” object because it exists *outside* humans. Despite its detached existence, this object “satisfies human wants of one sort or another.” This has important implications. In order to survive, humans must consume exterior objects which they must produce *socially* with the help of other produced exterior objects. Since the objects are detached from any individual, the control of these

objects must be regulated by society. If the social relations controlling access to these objects is such that one part of society is forced to work for another part of society, this is called “exploitation.” Marx is very aware of the contradiction implied in the usefulness of exterior things. He addresses it in his Introduction to *Grundrisse* [mecw28]31:2/o with respect to the finished product, and in his *Critique of the Gotha Programme* [mecw24]81:2 with respect to the means of production. In *Capital* itself, he takes up this theme in chapters Two, p. 98:1, and Nineteen, p. 535:3/o.

46:1 The usefulness of a thing makes it a use-value. ⁴	50:1 Die Nützlichkeit eines Dings macht es zum Gebrauchswert. ⁴
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This introduction of the term “use-value” sounds like a tautology—but it is not. For a correct understanding of this sentence, it is necessary to clarify the difference between the *properties* of a thing, its *usefulness*, and its *use-value*:

- Properties are immanent to a thing. Marx does not go as far as Kant to say that the immanent properties of a thing are unknowable. But Marx certainly says that things are not transparent, things do not spontaneously advertise their properties to everything around them, but these properties manifest themselves only when the thing is placed in a *relation* with other things. Marx says this in 67:2/o: “The properties of a thing do not arise from its relations to other things, they are, rather, merely activated by such relations.”
- The usefulness of a thing (in the First edition of *Capital*, [megaII/5]18:2, Marx writes more explicitly: usefulness for human life) is the manifestation of its properties in one particular relation, namely, in its relation to humans. The usefulness of a thing is therefore not immanent to the thing itself but is a relationship *between* the thing’s properties and human needs. It depends not only on the thing but also on humans. “A sheep would hardly consider it to be one of its ‘useful’ qualities that it can be eaten by human beings” [mecw24]538:6/o.

A thing is useful if its properties are able to serve human needs. Since human needs depend on social factors, such as fashions, technology, and customs, usefulness inheres in this dependence.

- The sentence “the usefulness of a thing makes it a use-value” says that this usefulness which, as we just emphasized, is *not* a quality of the thing itself but a relation between its qualities and human needs, is treated as if it was a property of the thing itself, and the things which have this relation of usefulness to human life are said to have “use-value.” The use-value of a thing is therefore what is known in philosophy as a relational property of that thing. It is not one of the qualities of the thing itself, but the relationship between the properties of the thing and human wants that is *attributed* to the thing *as if* it was a quality of the thing. (The modern concept of “utility function” attributes this same relationship to the human rather than the thing.)

The use-value is not the only property of a thing which is not grounded in the thing itself but depends on the relation between this thing and the observer. Kant even said that all qualities which we can know are such relative qualities (phenomena), and that the truly immanent qualities must for ever remain unknown to humans, are for ever inaccessible from outside this thing. The distinction between “primary” and “secondary” qualities is famously made in Locke’s *Essay Concerning Human Understanding* (for the modern state of this discussion see [NoI11]).

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Question 44 *Bring other examples of secondary or relational “properties” such as taste or use-value.* [2012fa](#), [2008fa](#), [2008SP](#), [1995WI](#).

Where Kant sees an impossibility to know the thing in itself, Marx does see possibilities, through practical interaction (very close to critical realist arguments), and he adds a historical dimension to this too.

Marx has a sociological answer for the riddle why some relations are considered to be qualities of the things themselves. Things which are useful for human life are given special names, they are called “goods” or “articles,” because people are practically appropriating them in the production process and also have to haggle with others over these things. This is why people first practically and then theoretically distinguish the things which are useful to them from the other things. All this is explained in Marx’s notes on Wagner, beginning with [\[mecw24\]538:6/o](#).

Question 45 *Why is the usefulness for human life attributed to the thing as if it was a property of the thing itself?* [2013fa](#), [2012fa](#), [2008fa](#), [2007fa](#).

Locke’s definition of use-value (which he calls “natural worth”) in footnote 4 is in full accord with Marx’s: it vividly describes how a relative concept (“fitness for human life”) becomes an attribute of the thing itself.

⁴ “The natural worth of anything consists in its fitness to supply the necessities, or serve the conveniences of human life.” *John Locke*, [[Loc77](#), p. 28].

⁴ „Der natürliche worth jedes Dinges besteht in seiner Eignung, die notwendigen Bedürfnisse zu befriedigen oder den Annehmlichkeiten des menschlichen Lebens zu dienen“. *John Locke*, [[Loc77](#), p. 28].

Question 46 *What is the meaning of “natural” in Locke’s term “natural worth”?* [2012fa](#), [2008fa](#), [2005fa](#).

In the remainder of the footnote, Marx argues that “natural worth” should be interpreted as “use-value” instead of “value:”

^{4 ctd} In English writers of the 17th century we frequently find “worth” in the sense of use-value, and “value” in the sense of exchange-value. This is quite in accordance with the spirit of a language that likes to use a Teutonic word for the immediate thing, and a Romance word for the reflected thing.

^{4 ctd} Im 17. Jahrhundert finden wir noch häufig bei englischen Schriftstellern „Worth“ für Gebrauchswert und „Value“ für Tauschwert, ganz im Geist einer Sprache, die es liebt, die unmittelbare Sache germanisch und die reflektierte Sache romanisch auszudrücken.

The translation “the actual thing” versus “its reflection” is

misleading, since it denies that the reflected thing is actual too.

Question 47 *Take some simple object, a shoe or a rubber ball, and differentiate between its properties, its usefulness, and its use-value.* [2010fa](#), [2008fa](#), [1997WI](#), [1995WI](#).

⇓ As we just said, the use-value of a thing is a relation between the thing and human nature, attributed to the thing itself, while properties belong to the things and are independent of humans. The practical mind does not notice that the use-value of a thing is a different category than the properties of a thing, because one needs possession of the thing in order to take advantage of its properties. Marx formulates this as follows:

But this usefulness does not dangle in mid-air. Conditioned by the physical properties of the body of the commodity, it has no existence apart from the latter.

Aber diese Nützlichkeit schwebt nicht in der Luft. Durch die Eigenschaften des Warenkörpers bedingt, existiert sie nicht ohne denselben.

The translation “derived” is wrong. The usefulness of a thing cannot be derived from its physical properties; one also needs to consider the humans involved,

both physically and socially. A condition both enables and constrains. Marx means “conditioned” mainly in an enabling sense here, while the

modern usage of the word emphasizes the constraints going along with conditions.

A related statement is also [47:3–48:1](#).

The terminology “body of the commodity” shows that for Marx, the thing which physically makes up a commodity cannot be identified with the commodity itself—just as a person cannot be identified with his or her body. (The social “soul” of a commodity, its value, will be discussed shortly.)

To paraphrase Marx’s argument: what people really want is the use-value of the things, not the things themselves, but they can only benefit from these use-values when they have possession of the things themselves. This is the basis for the social rules in a commodity society regulating who can have access to which *things*.

Question 49 *Do transportation, electricity, information, services, patents, other so-called “immaterial” commodities, fit into the definition of a commodity given here?* [2008fa](#).

Some products have a use-value which does not require the presence of the original product but which can be conveyed by inexpensive copies of the product. Information products, whether it be books, pictures, movies, etc., have this property. Modern necessities to dematerialize the economy in order to save resources call for a free distribution of these things. Capitalism goes in the opposite direction. It has created institutions (patents and copyrights) which mimic the situation where the use-value is only available if the unique original product is present. While capitalism extends commodification in some areas, it also restricts it in others. Things which according to their use-values are perfectly capable of being traded as commodities, do not take commodity form for overriding social reasons: the use of roads, public education, radio/TV, certain banking services, etc.

Finally it may be worth pointing out that the formulation “does not dangle in mid-air” is again a critique of Hegel and of all idealist philosophy. For Plato and Hegel, the properties of things *were* dangling in the air, they had their separate existence as ideals.

[Terminology and Summary] After having introduced, ever so briefly, the relationship between use-value and the properties of the commodity, and the distinction between the commodity and the body of the commodity, Marx obtains permission from the reader to simplify his wording by calling the body of the commodity “a use-value.”

The *body* itself of the commodity, such as iron, wheat, diamond, etc., is therefore a *use-value* or a good.

Der *Warenkörper* selbst, wie Eisen, Weizen, Diamant usw., ist daher ein *Gebrauchswert* oder Gut.

This sentence cannot be understood in the Moore-Aveling translation: “A commodity, such

as iron, corn, or a diamond, is therefore, so far as it is a material thing, a use-value, something

useful.”

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The version of this sentence in the First Edition of *Capital*, [megaII/5]18:2, leaves no doubt that this is a terminological convention:

For the sake of brevity, the useful thing itself or, in other words, the *body of the commodity*, such as iron, wheat, diamond, etc., will be called a *use-value*, good, article.

Abkürzend nennen wir das nützliche Ding selbst oder den *Warenkörper*, wie Eisen, Weizen, Diamant usw., *Gebrauchswert*, Gut, Artikel.

In the later editions, it is still a terminological convention, but since Marx furnishes a better logical justification for it, and at the same time uses a terser formulation, it has become more difficult to see that it is merely a convention. The argument is: In order to avail oneself of the use-value of a commodity, nothing more nor less is necessary than its physical presence. Therefore it is justified, when speaking about a thing traded as a commodity, to simply call it “a use-value.” The word is therefore used in two meanings, which do not conflict with each other.

Question 50 *How can one justify Marx’s confusing terminology to use the word “use-value” not only for the menu of possible uses of a thing but also for the thing itself as a material object?*

Use-value can also be attached to the absence of things: the absence of illness, crime, pollution, etc. Since these use-values cannot be commodified as readily, they are neglected in a commodity society.

↓ After emphasizing that for the enjoyment of the use-value, the body of the commodity is needed, Marx says that the other aspects of the commodity, the social conditions of its production, do *not* affect the use-value.

This characteristic of a commodity does not depend on whether appropriating its useful properties costs more or less labor.

Dieser sein Charakter hängt nicht davon ab, ob die Aneignung seiner Gebrauchseigenschaften dem Menschen viel oder wenig Arbeit kostet.

↑ It is the physical properties of the good and only those that convey its use-value. If one person works for 2 hours and another for 3 hours, and they produce products with identical properties, then they have produced identical use-values. (But note, although the labor in the thing does not affect its use-value, the quantity of the thing does affect its use-value, and the labor in the thing depends on the quantity of the thing.)

↓ The usefulness of a commodity depends on both its immanent qualities in relation to human needs and on its quantity. This was already said earlier. One milligram of milk will not do for the baby. Therefore the concept of use-value has a quantitative dimension, Marx codifies this in another convention followed when he discusses use-values:

When examining use-values, we always assume to be dealing with well-defined quantities, such as *dozens* of watches, *yards* of linen, or *tons* of iron.

Bei Betrachtung der Gebrauchswerte wird stets ihre quantitative Bestimmtheit vorausgesetzt, wie *Dutzend* Uhren, *Elle* Leinwand, *Tonne* Eisen usw.

Question 52 *Are there things which have a use-value that does not depend on the quantity of these things?* 2012fa.

This is all Marx says about use-value here. Since the commodity form is (at first) indifferent towards the kinds of use-values, any closer consideration of the particularities of use-values cannot enlighten us about the character of social and economic relations in capitalism. Of course, this does not mean that use-values are irrelevant for practical life:

The use-values of commodities furnish the material for a special branch of knowledge, whose textbooks are the commercial product manuals.⁵

Die Gebrauchswerte der Waren liefern das Material einer eignen Disziplin, der *Warenkunde*.⁵

↓ Sometimes, as in the footnote to come, Marx uses the word “bourgeois society.” This is simply an archaic word for “capitalism.”

⁵ In bourgeois societies the legal fiction prevails that every one, as a buyer, possesses an encyclopedic knowledge of commodities.

⁵ In der bürgerlichen Gesellschaft herrscht die *fictio juris*, daß jeder Mensch als Warenkäufer eine enzyklopädische Warenkenntnis besitzt.

↑ A legal fiction is an assumption made by a court for convenience, consistency or to achieve justice. Although Marx dispenses here with the discussion of use-values, use-values are practically relevant for people living in capitalism. The knowledge about use-values is not taught in schools but passed on informally: the best gadget to buy is a popular conversation topic. The footnote reminds us that it is a fiction that everybody knows everything they need to know about use-values. Many aspects of the use-values, such as the environmental side effects of their use, or the ecological footprint of their production and disposal, are by no means obvious.

[Transition to Exchange-Value]

The remainder of the paragraph paves the ground for the discussion of the next major topic, the *exchange-value*.

Use-value actualizes itself only by use or consumption.

Der Gebrauchswert verwirklicht sich nur im Gebrauch oder der Konsumtion.

The Moore-Aveling translation has a colon between this sentence and

the next. I replaced it with a period, as in the German and also

the Fowkes translation. I see no reason for a colon here.

↑ A thing may have beneficial properties for people, however they will not benefit from it unless they engage in the specific act of “using” the thing. And by using it, they often (but not always) destroy the thing or make its use-value unavailable to others. (By the way, the use-value of means of production is destroyed when they are *not* used; Marx says in 601:2 that capital would not be able to preserve its value without labor.) On the other hand, an implication of this is that “the use-value of a thing is realized for the humans *without exchange*, i.e., in the direct relation between thing and person,” as Marx says in 94:3, while the subjects to be discussed next, exchange-value and value, require a *social* process for their realization.

The above sentence also clarifies the terminology: if one exchanges things, or if one collects them in the basement in the hope that they will appreciate, one does *not* use them. “Use” means consumption and is seen in contradistinction to exchange.

Use-values constitute the *material content of wealth*, whatever its *social form* may be.

Gebrauchswerte bilden den *stofflichen Inhalt des Reichtums*, welches immer seine *gesellschaftliche Form* sei.

↑ A thing which has properties useful for human life, considered from the point of view of its possible uses by humans, is called a “use-value.” People handle use-values every day. People’s survival depends on use-values. This is true in every society. The available use-values constitute the material wealth of a society. ↓ But the useful things produced in *capitalist* society have an additional specific social power: they can (and must) be traded or sold on the market. This ability (and necessity) is called their “exchange-value”:

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In the form of society we are about to consider, they are, in addition, the material carriers of—exchange-value.

In der von uns zu betrachtenden Gesellschaftsform bilden sie zugleich die stofflichen Träger des—Tauschwerts.

“Stoffliche Träger” should not be translated with “material depository.” The emphasis is not

on someone or something depositing exchange-value in the article, but that any commodity

whose use-value is intact has the additional power of being exchangeable.

The clear distinction between “use-value” and “exchange-value” can be found in Adam Smith, see [Hei11, p. 36/7] for details. At Marx’s time it was therefore part of the mainstream in economics. This is probably why Marx didn’t think he had to say more about this here. But for the modern reader, who is no longer so familiar with these concepts, it is useful to clarify that ↑ Marx’s one-sentence introduction of exchange-value makes the following implicit claims:

- Exchange-value is social, not individual or interpersonal. If two individuals decide to exchange something which is not commonly exchanged, this does not give this thing an exchange-value.
- Exchange-value resides in the commodities:
 - The exchange of commodities does not have its origin in a bigger social ritual (as the exchange of wedding rings is part of the marriage ceremony), but the things themselves (if they are commodities) are exchangeable.
 - Marx does not say a commodity has exchange-value because its owner is willing to make an exchange. Even if the owner has no intention to make an exchange, his or her commodity still has exchange-value. The exchange-value is considered to belong to the product, it is not something given to the product by its owner.
 - Although the owner names the exchange proportions and decides whether or not to make the exchange, these exchange proportions are also considered to belong to the commodity. Indeed, the owner has limited ability to influence the exchange proportions, which are given by the market.
 - Exchange-value also resides in the commodities in the sense that not only ownership itself but also the right to transfer this ownership to further prospective owners changes hands along with the commodity.
- Exchange-value cannot be derived from the use-values involved. Rather, commodities have a second quality, separate from their use-values, which allows them to be traded on the market.

Question 56 *In what sense can one say that exchange-value resides in the commodity?*

Marx characterizes the relation between use-value and exchange-value with the words: use-values are the material “carriers” of exchange-value. What does this mean? If a commodity loses its use-value then it also loses its exchange-value. Nevertheless the use-value is not the source of the exchange-value: if a certain use-value becomes freely available to all (bread growing on wild trees) then it still is a use-value but no longer has exchange-value. Marx will elaborate on this relationship in 50:2/o, after we know better where exchange-value comes from.

Exam Question 60 What is the exchange-value of a commodity? (Give its definition, not an analysis where it comes from). [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [1999SP](#), [1998WI](#), [1997sp](#), [1996ut](#), [1996sp](#), [1995WI](#).

Exam Question 63 Husband and wife exchange wedding rings during their marriage ceremony. The husband has bigger fingers and his ring contains almost twice as much gold as the wife's. I.e., the monetary values of these rings are different. Does this marriage ceremony make the husband's ring an exchange-value for the wife's ring although on the market it would not be possible to exchange the wife's ring for the husband's ring? [2013fa](#), [2012fa](#), [2011fa](#), [2008fa](#).

Exam Question 65 Explain in your own words what it means to say that use-values are the "material carriers" of exchange-value. [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2005fa](#), [2004fa](#), [2002fa](#), [2001fa](#), [1995ut](#), [1995WI](#).

Question 67 If the exchange-value of a commodity cannot be derived from its use-value, then a used commodity should have the same exchange-value as a new commodity, as long as it is not broken. Right or wrong? [2008fa](#), [2003fa](#), [1997ut](#).

1.1.b. [From Exchange-Value to Value]

In the practical activity involving commodities, two different aspects of the commodity demand attention from the commodity owner: on the one hand, its use-value, and on the other, the commodity's additional immanent power which was just introduced, namely, its exchange-value. Everyone handling commodities has to deal with this double character. At the beginning of *Contribution*, [269:1](#), this double character is the first observation made about the commodity. In *Capital*, by contrast, Marx begins with a brief discussion of use-value, which is tailor-made for commodity production but broad enough that it also applies to other societies. After this, Marx introduces exchange-value, a relation which is specific to commodity-producing societies. Right now, we are at the beginning of a detailed discussion of exchange-value.

[First Manifestation of Exchange-Value]

Besides use-values, commodities also have prices. If we think away money, then relative prices are left. These relative prices are one of the manifestations of the exchange-value of commodities:

46:2 Exchange-value manifests itself at first as the *quantitative relation*, the proportion, in which use-values of one sort are exchanged against use-values of another sort⁶—...

50:2/o Der Tauschwert erscheint zunächst als das *quantitative Verhältnis*, die Proportion, worin sich Gebrauchswerte einer Art gegen Gebrauchswerte anderer Art austauschen,⁶ ...

Marx writes here "at first" because

- on the one hand, the quantitative exchange proportion in which a commodity can be exchanged for other commodities is, for the commodity owners, the most relevant aspect of the exchange-value of this commodity, see footnote 17 to [59:3/o](#).

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- But on the other hand, the exchange proportion between two use-values is not a *full* manifestation of exchange-value. For instance, Marx will show in section 1.3 that *money* and *prices*, i.e., since Marx was talking about the gold standard,
 - the singling out of one commodity (gold),
 - the public announcement of the exchange-proportions between gold and all other commodities (prices), and
 - the ability of this singled-out commodity gold to buy every other commodityare also manifestations of the exchange-value of the *commodities*.

One might wonder why a scientific analysis of the commodity, which aims to go to its inner essence, begins at the opposite end, namely, with the form of appearance of the commodity. We witness here Marx investigating the practical activities of the individuals in a society in order to infer from them the underlying invisible social relations. This practical activity is guided by the exchange relations of the commodities on the surface of the economy. We will see shortly how Marx dives down from the surface relations to the underlying depth relations.

Although we are still in the middle of the sentence, let's already take a look at footnote 6. In the Preface to the Third edition, p. , Engels writes that the footnotes document "where, when and by whom an economic idea conceived in the course of development was first clearly enunciated." ↓ Footnote 6 documents the view in the literature that exchange-value is *only* the quantitative exchange proportion between commodities, and nothing else. If the earliest economists, who are presumably summarizing the experiences of the economic agents in early capitalism, see exchange-value in this way, this justifies Marx's entry into exchange-value from its quantitative side.

⁶ "The exchange-value consists in the exchange proportion between one thing and another, between this amount of one product and that of another." Le Trosne [LT46, p. 889]

⁶ „Der Tauschwert besteht in dem Tauschverhältnis, das zwischen einem Ding und einem anderen, zwischen der Menge eines Erzeugnisses und der eines anderen besteht.“ Le Trosne [LT46, p. 889]

In all four original editions, this footnote is given in French. In the First edition, it is footnote 6 to paragraph [megaII/5]18:3, in the Second edition it is footnote 6 to paragraph [megaII/6]70:3/o, in the Third edition it is footnote 6 to

paragraph [megaII/8]64:3/ooooo, and in the Fourth edition it is footnote 6 to paragraph [megaII/10]38:3/o. Le Trosne uses the word "valeur." MEW 23 translates it as "Wert" (value), but this version here changes it into

"*Tauschwert*" and "exchange-value" because the German translation does not come from Marx, and it is debatable whether Marx himself would have translated it as "*Werth*" instead of "*Tauschwerth*."

↑ Marx quotes here Le Trosne although his own theory differs from Le Trosne's. Marx does *not* identify the exchange-value with exchange proportions, but he sees the exchange-value as a complex of interrelated social relations which include exchange proportions but also other social relations.

Question 69 *The French economist Le Trosne writes that exchange-value consists in exchange-proportions between commodities. Does Marx agree with this, or how would he criticize Le Trosne's formulation?* *Answer*, 2012fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa.

Term Paper Topic 70 *Le Trosne is a Physiocrat. Physiocrats opposed the Mercantilists who thought value comes from circulation. The Physiocratic theory is related to the labor*

theory of value. It holds that value does not come from any labor but only from agricultural labor. Therefore one would not expect a Physiocrat to say that value consists in exchange-proportions. Yet this is exactly what Le Trosne says in the passage quoted by Marx in footnote 6 to 126:2. How does this statement fit into Le Trosne's physiocratic beliefs?

↓ After this digression about the footnote, let's go back to the main text in *Capital*. Hitched to the end of the sentence saying that exchange-proportions are manifestations of the exchange-value, a brief 9-word clause says a second thing about exchange-proportions: ... —a proportion that constantly changes | ... ein Verhältnis, das beständig mit Zeit und Ort wechselt.

Everybody living in capitalism is familiar with the variability of exchange-proportions. This is therefore not a *novel* or *obscure* fact, but Marx points to something which we all know. Nevertheless, Marx is going to draw implications from the familiar facts adduced so far which are not commonly drawn: he claims that exchange-value is a *contradictory* social relation.

[Discovery of a Contradiction]

Marx first introduces exchange-value as a quality *immanent in* commodities, and then he says that it manifests itself in a relation *between* two commodities. This is not yet a contradiction. Despite my italics, the prepositions “immanent in” and “between” are not inconsistent with each other. It is not unusual that an *immanent* property of something manifests itself in its *relations* with other things. The physical mass of a body (which is immanent in the body) manifests itself in the gravitational attraction between bodies with mass (which is relative). Just as a rock has an immanent physical power (its mass, measured in kg) which manifests itself relatively, in the rock being attracted by other bodies with mass and in turn attracting them, exchange-value is introduced as a potential or power inside the commodity, “carried” by the use-value of the commodity, which manifests itself relatively, by the commodity being exchangeable with other commodities. It is therefore no surprise that the first thing one sees of exchange-value, of a potential or power residing *in* the commodity (hence the word “immanent”), is the exercise of this power in the interaction of the commodity whose use-value is the carrier of this exchange-value, with other commodities. So far, nothing has been said that is contradictory.

But after his remark about the relativity of exchange proportions, Marx tells us that he sees a contradiction. Marx says that the familiar *variability* of exchange proportions is in contradiction with the immanence of exchange-value postulated earlier. Presumably, his argument is: if the exchange proportions were indeed the manifestation of an immanent power of commodities (the so-called exchange-value which every commodity is presumed to have), one should not expect them to be highly variable depending on circumstances. Just as the weight of a rock does not depend on the humidity of the air or the time of day.

Question 71 *Would Marx argue that the weight of a rock cannot be the manifestation of an immanent property of the rock because it changes with the geographic location of the rock?*
2013fa, 2012fa.

The reader probably thinks that this commentary reads too much into a single throw-away remark by Marx. The variability of exchange-proportions is a quite tenuous basis for Marx's conclusion that Marx sees, and calls the reader's attention to, phenomena which are in contradiction with the immanence of exchange-value. But Marx does not bring *all* the

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arguments here that could be adduced for exchange-value manifesting itself in contradictory ways. He only brings the argument which can be made already now, at this early stage of the development. Marx revisits this issue on several other places:

- In 85:1/o in the section about the fetish-like character of the commodity, Marx refers to both fixity and variability of exchange-values. See Question 395.
- Somewhere Marx says that in the short run, exchange-value depends on demand and supply. Only if demand *equals* supply, exchange-value depends on labor content.
- There is also a contradiction in people's everyday interactions with commodities. Sometimes people consider the exchange-value as the manifestation of some immanent quality of commodities, and at other times they consider exchange-value to be purely relative.
- Also the common circular definition of value by cost is evidence of this contradiction.

The contradictory nature of exchange-value is therefore an important observation, which can be confirmed in many different ways. It is one of the foundation stones of Marx's explanation of capitalism—although those living in capitalism have learned to cope with the contradictory character of exchange-value so well that they are usually not even aware that they are dealing with a contradiction.

Since Marx begins with the first form in which exchange-value *presents itself*, one might think that people's *perceptions* of exchange-value are contradictory. But the whole truth, which will become fully apparent only as the investigation proceeds, is that exchange-value itself is contradictory.

⇓ In order to force the unfamiliar thought of a really-existing contradiction into the reader's mind, Marx's plays now the devil's advocate. Going over to the opposite extreme from his initial assumption of an *immanent* exchange-value, he says that exchange-value is *purely relative*:

Hence exchange-value seems to be something accidental and purely *relative*. A "valeur intrinsèque," i.e. an immanent exchange-value that resides inside the commodities, seems therefore a contradiction in terms.⁷

Der Tauschwert scheint daher etwas Zufälliges und rein *Relatives*, ein der Ware innerlicher, immanenter Tauschwert (valeur intrinsèque) also eine contradictio in adjecto.⁷

↑ Two remarks about this sentence:

- An "accidental" outcome is an outcome not subject to some internal necessity. Not only do the exchange proportions vary with time and place, but these variations are unsystematic and cannot be predicted.
- "Purely relative" means: the exchange-value does not come from the commodities themselves, but only from their relation with each other or with their environment. For instance, the spacial distance between two commodities, say, the question whether commodity *A* is located less than a mile away from commodity *B* or not, is a purely relative question, which cannot be decided by looking at *A* or *B* separately. Going back to commodities, this relativity means that the exchange-value has nothing to do with the use-values of the commodities.

- The source of the French quote “valeur intrinsèque” is not clear. Marx possibly refers to the definition of “value” in footnote 6, which was originally given in French (compare footnote 6 to paragraph [megaII/5]18:3 in the First edition).
- Contradiction in adjecto is a contradiction between subject and adjective. The adjective “immanent” does not seem to fit together with the word “exchange-value” because the exchange-proportions are too variable.

Exam Question 72 Which empirical evidence casts doubt on Marx’s assumption in 126:1, supported by common-sense understanding, that exchange-value is immanent in the commodity? 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007SP, 2004fa, 2003fa, 2001fa, 1999SP, 1997ut, 1996sp, 1995WI.

↓ Footnote 7 shows that the conclusion that exchange-value cannot be immanent in the commodity has indeed been drawn in the literature—although the reasoning of these authors was probably different from Marx’s observation that exchange-proportions are too variable.

⁷ “Nothing can have an intrinsic value” Barbon [Bar96, p. 6] or, as Butler says, “For what is worth in anything but so much money as ’twill bring.”

⁷ „Nichts kann einen inneren Tauschwert haben“ Barbon [Bar96, p. 6], oder wie Butler sagt: „Der Wert eines Dings ist grade so viel wie es einbringen wird.“

Question 74 How is Barbon’s statement that nothing can have an immanent exchange-value related to Butler’s statement that the worth of something consists in the amount of money for which it can be exchanged? 2012fa, 2008fa, 2007fa, 2007SP.

Marx takes the perception of these earlier writers seriously. By introducing this perception as a contradiction (not in order to dismiss it but in order to give it the attention it deserves, more about this in the next paragraph), he acknowledges that these earlier writers saw something. Marx recognizes that they did not make things up, but that to some extent their perception is justified—even though he will try to show that these authors did not see enough, they had an only partial view.

Question 76 In 126:2, Marx says that certain everyday evidence seems to indicate that exchange-values are accidental and relative. How much truth is in this? To what extent are exchange-values indeed accidental, and to what extent are they indeed relative? (This question requires familiarity with things Marx says later.) 2011fa, 2010fa, 2008fa, 2007fa.

Question 77 Are there other places in Capital where Marx says that the exchange values seem accidental? 2008fa, 2007SP, 2005fa.

Question 78 Marx maintains through this entire discussion that exchange-value is immanent in the commodity. Is this justified? Exchange-value is a social relation, i.e., it is by definition relative. Marx knows this. Shouldn’t he have abandoned his assertion that exchange-value is immanent? 2011fa.

[How to Deal with Contradictions]

Marx just pointed out that exchange-value is contradictory: it is immanent and relative at the same time. If you expect Marx to refute this contradiction or explain it away, you don’t know him. Marx shares the view of many Hegelians of his time that empirical evidence

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is full of contradictions, although common sense often does not recognize them as such. Compare *Contribution*, 275:1/o, and the postface to the Second edition of *Capital*, p. . In Marx's eyes, evidence which is contradictory is especially informative. Marx is famous for remarking on the contradiction that money is at the same time a *thing* and a *social relation*, or on the contradictions between *owners* and *operators* of capital. The presently discussed contradiction, that exchange-value is at the same time *immanent in* and a *relation between* commodities, is of a more subtle kind and therefore often overlooked. The discovery of this contradiction is already a scientific achievement.

Question 79 *Marx says that the variability and irregular nature of the exchange proportions (which can be observed) contradicts the intrinsic nature of exchange-value (which can also be confirmed by observation). Has he really discovered a contradiction which nobody else noticed, or can his observations be explained without reference to contradictions? Make your best effort to explain it all without contradictions. Make sure you are actually getting rid of the contradiction, not just hiding it. Marx's treatment of contradictions assumes that one can hide the contradiction but not get rid of it.*

Question 80 *Give examples illustrating the contradiction that in everyday practical activity exchange-value is sometimes considered immanent and sometimes considered relative.* 2012fa.

Question 83 *Marx discusses at length the question whether exchange-value is immanent in the commodity or relative. What is the view of today's mainstream economics? Does it consider exchange-value to be immanent or relative?* 2013fa, 2010fa, 2008fa, 2008SP.

What should a scientist do if the evidence is contradictory? Marx's formulation that the exchange-value *seems* accidental is a hint. The word "seems" stresses the limited character of the observations on which Marx based his claim that there is a contradiction. Marx called this contradiction when he looked at the *first* manifestation of exchange-value and at nothing else. ↓ Since this limited viewpoint leads to a contradiction, it is necessary to take a more thorough look at the evidence.

Let us consider the matter more closely. | Betrachten wir die Sache näher.

↑ This is a standard formulation of Marx's when his investigation reaches an impasse (he also says this on pp. 96:3–97:0a and 203:1/o). Such an impasse does not mean that an error has been made, but that our investigation has reached a point where it has become necessary to jump out of the linear reasoning and to probe into deeper layers of reality than those presently under investigation. This "closer consideration of the matter" is always a discontinuity in the presentation, a new beginning in a different direction. In the present case, this "closer consideration of the matter" consists of three "thought experiments:"

Exam Question 85 *Why does Marx's inquiry sometimes reach an impasse which can only be resolved by "considering the matter more closely"?* 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007SP, 2004fa, 1997ut, 1996ut, 1995WI.

[First Thought Experiment and Social Relations as Signs]

The first thought experiment picks out yet another familiar fact about exchange relations in order to draw specific conclusions from it. These conclusions lead to a question which is

resolved in a second thought experiment—which again simply looks at the surface phenomena and reads off what they are telling about the underlying relations. The facts themselves are known and seem almost trivial. It is instructive to see Marx make use of quite subtle evidence in his search for the underlying mechanisms driving the exchange relations. Finally, Marx will make a third thought experiment which no longer just reads evidence off the surface but immerses the reader into looking at the circulation process from the commodity’s point of view. **FIXME** Define the third thought experiment better!

[The Polygamy of Commodities] ↓ The first thought experiment draws attention to the fact that one quarter of wheat can not only be exchanged for *one* other commodity, say *a* lbs. of iron, but for *many different* commodities:

46:3/o Any given commodity, one quarter of wheat for instance, is exchanged for *x* shoe polish, or *y* silk, or *z* gold, etc.—in short, for other commodities in the *most diverse proportions*.

51:1 Eine gewisse Ware, ein Quarter Weizen z.B., tauscht sich mit *x* Stiefelwichse oder mit *y* Seide oder mit *z* Gold usw., kurz mit andern Waren in den *verschiedensten Proportionen*.

How can this multi-exchangeability, this polygamy of commodities, give relevant information about the structure of capitalism? The institution of marriage which I just used as metaphor (polygamy) answers this question. Marriage has a different character in a monogamous society than in a polygamous society. If the husband is married to several spouses at once, this is a different kind of relationship than if he has only one spouse. ↓ After this digression about polygamy let us return to the commodities. I hope I have convinced the reader that the fact that the exchange relation involves not just one pair of commodities but many commodities can make a difference. After these doubts have been moved out of the way, the question arises: what *is* this difference? Marx uses negation of negation in order to draw out the implications of the “polygamy” of the commodities:

Instead of one exchange-value, the wheat has, therefore, a great many.

Mannigfache Tauschwerte also hat der Weizen statt eines einzigen.

↑ Marx plays the devil’s advocate again, magnifying the subtle implications of his abstract arguments. Since the exchange-value of wheat can manifest itself in many different kinds of exchange-acts, one might think that wheat has many different exchange-values. This is the negation of the original position taken in 46:2, where the first manifestation of the exchange-value of the wheat was the (albeit variable) exchange-proportion between the wheat and *one* other commodity only, consistent with the introduction of the exchange-value where each commodity has *one* immanent exchange-value. Which is it, one or many? As is often the case, Marx’s negation is a brief interlude, launching him into the negation of the negation, where the real work is done.

↓ The word “but” at the beginning of the next sentence announces the negation of the negation. Marx reminds us that all the other commodities, such as shoe-polish, silk, etc., are received in exchange for *wheat*. One does not need to be a friend or relative of the owners of shoe-polish or silk to make these exchanges, all that is necessary is that one owns *wheat*. Therefore any trader who made one of these exchanges could in principle also have made all the others. This is presumably the meaning of the word “replaceable” at the end of the sentence.

But since *x* shoe polish, as well as *y* silk, as well as *z* gold, etc., is the exchange-value of one quarter of wheat, *x* shoe polish, *y* silk, *z* gold, etc., must be exchange-values replace-

Aber da *x* Stiefelwichse, ebenso *y* Seide, ebenso *z* Gold usw. der Tauschwert von einem Quarter Weizen ist, müssen *x* Stiefelwichse, *y* Seide, *z* Gold usw. durch einan-

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able by each other or equal in magnitude.

der ersetzbare oder einander gleich große Tauschwerte sein.

↑ How does Marx make the step from “replaceable” to “equal in magnitude”? Here I am trying to fill in a step which Marx left out. From replaceability follows that none of these exchanges can be considered more favorable than the others. The trader who exchanged his quarter of wheat against x shoe polish cannot say he got a worse deal than the one who exchanged her quarter of wheat against y silk. Had he preferred y silk, he could, because of replaceability, have exchanged his wheat for silk instead of shoe polish. Since all exchange-values are equally preferable to the traders, Marx calls them “equal in magnitude.”

[The Two Conclusions from the First Thought Experiment] This was the negation of the negation, and also the end of the first thought experiment. Next, Marx draws his *conclusions* from this thought experiment. These conclusions are *suggested* by this thought experiment but not logically or mathematically implied by it, and they will need verification which necessarily goes beyond a *thought* experiment. The main conclusion from this first thought experiment (and the only conclusion in the First, Second, and French editions) is that exchange-value is a *sign*, pointing to something different than the exchange-value itself. In the Third and Fourth editions, this conclusion is split into two steps. Let’s follow the text of the Fourth edition:

↓ The first step in Marx’s conclusion from his first thought experiment is: all the exchange-values of the wheat are just different ways of making the same statement about wheat.

It follows therefore, firstly: the valid exchange-values of a given commodity express an equal content.

Es folgt daher erstens: Die gültigen Tauschwerte derselben Ware drücken ein Gleiches aus.

Moore-Aveling and Fowkes both write: express something equal. The word “something” is unfortunate here because it suggests that the equal content is a thing. Marx’s own formulation does not have this connotation. This can be seen best if we look how the formulations evolved through the different editions. The First edition, [megaII/5]18:4/o, says: “It must therefore be distinguishable from its different *modes of expression*.” “It” means here “exchange-value,” but between First and Second editions Marx changed his terminology, and according to the new convention, “it” would have to be “value.” I.e., the First edition said that the many exchange-values are modes of expression distinguishable from what they are the mode of expression of. Using the terminology of signs, which

Marx did *not* use, Marx says here that the exchange-values are signs distinguishable from the target they are pointing to, without characterizing this target in any way. The Second edition, [megaII/6]71:1, says: “It must therefore have a content distinguishable from these different modes of expression.” Here “it” means “exchange-value,” and the content is “value.” This formulation accommodates the new terminology, but just as the First edition it does not characterize “value” other than saying that value is different from exchange-value, and that the relationship between value and exchange-value is that between content and mode of expression. The French edition, [megaII/7]21:1, is a literal translation of the Second edition. In the Third edition,

[megaII/8]69:1, this sense is equal to the Fourth edition. In the Fourth edition he writes “*ein Gleiches*,” literally “an equal,” translated here as “an equal content” (inspired by the formulation from the Second and French editions). He did not write “etwas Gleiches.” Right now we only know that all the different exchange-values are the expression of some equal underlying *social relation*. Only Marx’s second thought experiment will show that this underlying social relation can be reduced to a social substance (i.e., a “thing”) inside each commodity. I took pains to find a translation which does not anticipate the result of this second thought experiment, because otherwise the reader of the English version will not be able to understand the point of the second thought experiment.

↑ To illustrate this conclusion, I’d like to give an anecdote from my student days. One evening I was driving my car in the narrow streets of Munich, Germany. Some car facing

me in the opposite lane blinked its lights at me. I thought: this must have been someone who knew me, i.e., I assumed that the reason for the blinking was a relation between the driver of the other car and myself, in other words, it was *relative*. But since it was getting dark I couldn't make out who was sitting in the other car. Only after *other* cars blinked their lights at me, too, did I realize I had forgotten to turn on my own headlights. I.e., their blinking did not signal a relationship between them and me, but it signaled something about *me* alone, in other words, an omission which was immanent to myself.

Let's go back to the commodities. The commodity owners making exchanges are goal-directed, they have reasons for the exchanges they make. They do not make exchanges in order to send signals. But despite the differences of their individual reasons, the actions they arrive at are very similar. It is like a ballet where the dancers enter the stage from many different directions, but they all end up in a well organized formation at the center of the stage. In the choreography of the actions of the commodity owners, the invisible social relations guiding them shine through.

Each trader uses a different commodity in order to get wheat. Marx concludes from this that the particular commodities offered by the traders do not matter, each exchange is therefore a sign pointing to the same target which is called "an equal" by Marx. I am using here "target" for what is usually called the "object" of a sign, because the "object" of a sign does not have to be an actual object. The only thing we know about this target is that it has to do with the social relations surrounding the production of wheat. Marx uses the formulation that each exchange-act is an "expression" of something having to do with the wheat.

To say it again, the different exchange-values of the wheat are equal responses to the wheat, just as the oncoming cars responded in an equal way when they saw me driving without lights. All exchange-values are making the same statement about the wheat. What are they saying about the wheat? This is not as obvious as with the blinking cars, and Marx needs a second thought experiment to decipher their message. But before we get to the second thought experiment, I will make two additional remarks about the first conclusion from the first thought experiment, and then we will have the privilege to read Marx's *second* conclusion from the first thought experiment.

(1) The first remark is an attempt to explain why Marx writes here "*valid* exchange-values." By this, Marx presumably means those exchange-proportions arising from a "replaceable" transaction, i.e., a transaction which would have taken place in a similar way had different individuals traded the same commodities. Here are three examples of sales and purchases which are not replaceable:

- If the seller is forced into a fire sale, then the exchange-values of the commodities sold in this way are not replaceable. If the buyer is lucky enough to buy a house from a someone who cannot wait but must sell immediately, and who is therefore offering the house at a discount, then the price the buyer is paying is not a "valid" exchange-value. It is as if the buyer had won in a lottery. It is not "valid" because other buyers will probably not win in this lottery, not every nice house has an owner desperate to sell.
- Another situation in which an exchange-value is not replaceable is if the seller is misinformed about the exchange-value of his or her product. If the seller does not realize that the old piece of junk in his or her attic is indeed a valuable antique, and therefore sells it much too cheaply, then this exchange-value is not valid.
- An exchange-value coming from a transaction between family members is also not necessarily valid.

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My illustrations of “invalid” exchange-values used examples involving buying and selling, although money has not yet been introduced. This is necessary because production of commodities is not possible without money; practical examples from a money-less commodity economy therefore do not exist. **FIXME** Perhaps I should make this last remark somewhere else.

Question 88 *Is it correct to say that exchange-values are valid if and only if equal values are traded for equal values?* [2013fa](#), [2012fa](#).

(2) The second remark explains why this same conclusion does not apply to the polygamy example. The reason for Mormon polygamy is *not* that to the husband, all wives are equal. Were there such equality between wives, then this would indeed suggest the hypothesis that all these marital relations are just the expression of some biological or social need to procreate. But people are more complex than commodities; they link up in many different ways and don't treat others as equals. Since there is no equality, there is also no replaceability in polygamy. On the contrary, there is a strict and contested *hierarchy* between the different wives in a polygamist family.

So far Marx has described *interactions* of commodity owners. ↓ Starting with the Third edition, which was edited by Engels, the conclusion from the first thought element was split into two halves. The second half draws a conclusion from these practical interactions to underlying social relations. Let's look at Marx's ontology of signs:

- Human interactions can be signs conveying meanings which are fully intended by the agents. For instance, people express their affections, respect, or disdain for each other through their interactions.
- Human interactions can be signs conveying meanings which the agents do *not* mean to convey. This is the situation just discussed: the many exchange acts involving wheat are signs about the wheat which the individuals making these exchanges do not intend to convey. Each individual has different reasons for trading his or her commodity for wheat, but the fact that all these individual circumstances lead to very similar acts (exchanges of some other commodities for wheat) is a sign conveying information about the social relations under which commodities are produced.
- Not only human *interactions* can be signs, but social *relations* can be signs as well. This is the case when the signs coordinate or choreograph many different individual activities and in this way bring social structures to life. If social relations project on the individual systematically misleading pictures of the situation they are in, then these social relations are signs. In his further development, Marx is going to give many examples where capitalist social relations are signs in this way. One might compare this with society placing virtual reality goggles over all members of society. If the individuals react not to the situation they are actually involved in but to what they see through these goggles, then their agency is compromised. One might say the individuals are possessed by the social relations in which they are immersed; they are still agents but no longer *free* agents because society acts through the individuals.

But secondly, exchange-value itself must be the mere *mode of expression*, “form of appearance,” of some content distinguishable from it.

Zweitens aber: Der Tauschwert kann überhaupt nur die *Ausdrucksweise*, die „Erscheinungsform“ eines von ihm unterscheidbaren Gehalts sein.

Moore-Aveling has: “secondly, exchange-value, generally, is only the mode of expression, the phenomenal form, of something contained in it, yet distinguishable from it.” My translation avoids the word “something” for the reason already pointed out in the preceding translation note. The

phrase “some *thing* contained in it” suggests that exchange-value is reducible to some *substance* contained in the commodities. Although this is true, it will only be derived in the second thought experiment. If this result is already pronounced now, then the purpose of the second thought experiment

becomes unintelligible. At the present time we only know that the source of exchange-value does not lie in the sphere of circulation but elsewhere. We do not yet know that this source is a social *substance* residing in the commodities.

↑ Marx just showed that other commodities (other than wheat), when they communicate their willingness to trade places with the wheat, make a statement about the wheat. Now Marx goes two steps further without making these steps explicit:

- He says that the exchange relation which these other commodities have with the wheat *have the purpose* to allow the other commodities to make statements about the wheat. In the blinking car metaphor, this would amount to saying that cars have headlights so that their drivers can blink at each other in the evening. Of course this is not the case; cars have headlights for other reasons. But humans have no qualms using these headlights for other reasons than what they were designed for. Exchange relations are more primitive. If you have discovered one thing all commodity owners do, it is not far-fetched to conclude that there is a social relation enabling and requiring them to do exactly this.
- Marx says that not only the exchange proportions between wheat and the other commodities are signs, but exchange-value in general is a sign. Not only the exchange offers of the commodity owners desiring wheat are signs, but the entire sphere of exchange is a sign.

What is the content of which the social relation “exchange-value” is an expression? Marx has not yet told us. The default answer, which Marx expects to be in the attentive reader’s mind at this point of the development, is the following: The social relation “exchange-value,” which commodity owners are confronted with whenever they are trying to exchange commodities, is the expression of some *other* social relation these same commodity owners are also immersed in (besides being commodity owners).

Although Marx says here only that exchange-value is the expression of a social relation *different* from exchange-value, the understanding is that this other social relation, which is expressed here, has nothing to do with exchange but is a relation of *production*. One can say that the commodities’ exchange-value is *remotely controlled*. Marx does not say this explicitly—again this is a missing step which these Annotations try to fill in—but everyone knows that the exchange of commodities is only the second act in a two-act drama, the first act being the production of the commodities. Production is private, and the market is the only arena through which the producers come in contact with other producers and with the consumers. Marx does not mention this here, but elsewhere he tells us that such basic facts about our society must be kept in mind to understand his development. In the *Introduction* to *Grundrisse*, [mecw28]37:2–38:1, he writes:

The subject, society, must always be kept in view ... as the pre-condition of comprehension even when the theoretical method is employed.

Auch bei der theoretischen Methode daher muß das Subjekt, die Gesellschaft, als Voraussetzung stets der Vorstellung vorschweben.

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Question 90 *Is there other surface evidence, other than the variability of exchange proportions, indicating that exchange-value is the expression of some deeper relation of production?* [2008fa](#), [2007fa](#), [2007SP](#), [2004fa](#).

Since the first thought experiment has the result that exchange-value is a sign, it confirms from evidence the sign character of capitalist social relations which is an important leitmotif in Marx's presentation. We will encounter ample additional confirmation that this presentation is justified.

[What Did the First Thought Experiment Teach Us?] After having discussed the second part of the conclusion from the first thought experiment, let us take stock which aspects of the contradiction between immanent and relative exchange-value have been explained so far. The sign character of exchange-value explains its variability with time and place. If exchange-value is the surface-echo of an underlying social relation having to do with the production of wheat, then it is to be expected that this echo might also be affected by other influences, i.e., that it is variable, even if the underlying social relation is immanent. Marx will say more about these other influences in chapter Three, p. [111:1–112:0](#).

[Second Thought Experiment and the Concept of Reduction]

Now we have evaluated the first thought experiment. We know now that the exchange-value is a social relation that is remotely controlled; it is the surface expression of social relations in the sphere of private production (which for the market participants is invisible). But this first thought experiment left us with one loose end. It concluded that the surface relations of the wheat with other commodities contain signals in which the other commodities *say* something about the wheat. But it did not tell us *what* they are saying. This is a big question. The second thought experiment gives a partial answer. We will see that this answer seems to shatter the result of the first thought experiment, just as the relativity of exchange-values seemed to shatter their immanence.

The task at hand is to decipher *what* the commodities are saying. Since all commodities say the same thing about the wheat, it is sufficient to listen to what *one* of them says about the wheat. ↓ Marx picks *iron* as his witness:

47:1 Let us furthermore take two commodities, e.g., wheat and iron.

51:2 Nehmen wir ferner zwei Waren, z.B. Weizen und Eisen.

↑ We are back at the exchange relation between *two* commodities. Wheat and iron are politically relevant commodities at Marx's time; they are a reference to the Corn Laws. [\[Cle79\]](#). Marx has not yet told us which question his interrogation of the iron is trying to resolve, this will become apparent in the second sentence below. ↓ Think of it as an interrogation of a witness by the judge. The judge asks the the witness, the *x* lbs. of iron standing in the witness stand, "what do you think of the wheat?" The iron answers: "I think the wheat is equal to me." The judge seeks a clarification: "The wheat is equal to you because you can be exchanged on the market for 1 quarter of wheat?" The iron responds: "This is the market exchange-relation right now, your honor. But even if it changes, there will always be *some* quantity of wheat which can be exchanged for me. That is why I feel that wheat is my equal.

The proportions in which they are exchangeable, whatever the numbers may be, can always be represented in an equation in

Welches immer ihr Austauschverhältnis, es ist stets darstellbar in einer Gleichung, worin ein gegebenes Quantum Weizen ir-

which a given quantity of wheat is equated to some quantity of iron, say 1 quarter wheat = x lbs. iron.

gendeinem Quantum Eisen gleichgesetzt wird, z.B. 1 Quarter Weizen = a Ztr. Eisen.

↑ Although wheat and iron are completely different commodities, society says, through the exchange relation between them, that in some quantitative proportions (the exact numbers do not matter) wheat and iron are *equal*.

In other words, this relationship between wheat and iron is not only a sign relation but also the expression of an *equality*. It is a different equality than that which had been the focus of the first thought experiment. There, in 46:3/o, Marx used the fact that silk, gold, (and also iron) gave equal responses to the wheat. From this he concluded that none of them played an individual role in this response, they were only different messengers, the response was about the wheat alone. These responses were signals about the wheat. The second thought experiment yields the discovery that each of the commodities sending a signal about the wheat asserts that the wheat is *equal* to the messenger commodity sending this signal.

Now Marx is ready to formulate the question he is working on:

What does this equation say?

Was besagt diese Gleichung?

↑ What does the equality between wheat and iron say about the wheat? This question, which seems more appropriate to literature critique than to economics, is pertinent for an understanding of capitalism, because the sign character of the exchange relations between commodities is indispensable for the functioning of any market economy. The market interactions between commodity owners mediate their relations of production. By asking what these interactions “say” i.e., by exploring the “market signals,” by exploring the messages filtering down to the private producers when the commodity traders on the surface routinely exchange their commodities, Marx uncovers the character of the social relations between the producers themselves.

Question 91 *The world is replete with signs, i.e., full of things which, in the eyes of someone, say something about something other than themselves. Why is it relevant for understanding capitalism to investigate what the exchange relations between commodities “say,” as Marx does in 127:2?*

Question 92 *Comment about the following critique of Marx: When Marx asks in 127:2 what is the meaning of the exchange relation between two commodities, he commits the error of treating the economy like a literary text. The actions of the economic agents must be causally explained, but any reflection about their “meaning” is an interpretation which does not help us understand what is really going on. 2011fa, 2010fa, 2008fa, 2005fa.*

If we want to decipher what this equation says, we must keep in mind that it is an equation between things which are *not* equal. Wheat and iron are not equal. But when their owners exchange them, they treat them *as if* they were equal. In the next three sentences, Marx uses two different metaphors and introduces a new concept, in order to capture this simultaneous equality and inequality.

Wheat and Iron Have Common Ingredient ↓ Marx’s first attempt to answer his own question what the equation between wheat and iron says uses what we will call the “ingredient metaphor”:

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That in two different things—in 1 quarter of wheat and in x lbs. of iron—exist equal quantities of a common ingredient.

Daß ein Gemeinsames von derselben Größe in zwei verschiedenen Dingen existiert, in 1 Quarter Weizen und ebenfalls in a Ztr. Eisen.

↑ If two commodities are *treated* as equals in the exchange, the question arises: “under what conditions is this treatment justified?” Such treatment is justified if the commodities are indeed equal—they must not be completely equal but must be equal in *some* respect. Marx uses the metaphor for this partial equality that wheat and iron contain a common *ingredient*. We know that they do not actually have a common *physical* ingredient—Marx will get to this in 47:3–48:1. The transition from either of the two commodities to the ingredient which is common to both must therefore be a switch in field under investigation, namely from exchange to production. Marx’s next metaphor makes room for such a switch:

Wheat and Iron Equal to a Third There is a little jump in the argument. The next sentence takes off not from the premise that the commodities say “we have the same ingredient,” but from the premise that they say “we are equal” despite the fact that they are not. The two things are therefore equal to a third, which is in itself neither the one nor the other.

Beide sind also gleich einem Dritten, das an und für sich weder das eine noch das andere ist.

↑ Marx uses here a different metaphor to express the simultaneous equality and inequality of wheat and iron. Instead of saying wheat and iron have a common ingredient, he is using now an *intransitive* equality relation. Since we know that wheat and iron are not equal to *each other*, Marx concludes that each of them is “equal” to a *third thing* which is neither wheat nor iron. I am writing “equal” in quotes, because this equality is not symmetric and transitive: from $A = C$ and $B = C$ does not follow $A = B$.

To say that this third thing is neither wheat nor iron is an *understatement* of how different this third thing is from wheat and iron. This equal third thing is not even located in the same sphere as the commodities wheat and iron. It is located not on the market (the “surface”), but on a deeper level, in production. Like the contradiction leading to the first thought experiment, this conclusion here tells us that it is impossible to continue the linear discourse, but it has become necessary to jump from the surface relations to the underlying sphere of production.

The following passage from *Theories of Surplus-Value* 3, [mecw32]326:3/o, shows Marx’s awareness that this “third,” to which wheat and iron are equal, is not on the surface but in the “depth.” Marx is discussing here the British Philosopher Samuel Bailey, who was critical of David Ricardo:

[mecw32]326:3/o The most superficial form, in which exchange-value manifests itself, namely as the *quantitative proportion* in which commodities exchange themselves, *is*, according to B[ailey], their value.

[mew26.3]136:5/o Die oberflächlichste Form, worin der Tauschwert sich zeigt, als *quantitatives Verhältnis*, worin Waren sich austauschen, *ist* nach B[ailey] ihr Wert.

↑ The word “is” is in italics because in Marx’s view, the quantitative exchange proportions are a surface *reflection* of value but not value *itself*. ↓ It is unclear whether the next sentence is only talking about Bailey or whether Marx means to say that there is a *general* taboo against depth thinking.

[mecw32]326:3/o It is not permitted to proceed from the surface into the depth.

[mew26.3]136:5/o Von der Oberfläche in die Tiefe fortzugehen, ist nicht erlaubt.

Question 95 *Is there a general taboo in capitalist society against thinking in terms of surface and depth?* 2013fa.

↓ Bailey's answer has two interrelated flaws: he has a flat view of social relations and he is unable to see contradictions and draw simple conclusions from them:

[mecw32]326:3/o He even forgets the simple consideration that, if y yards of linen = x lbs of straw, this equalization of the unequal things linen and straw turns them into equal magnitudes.

[mew26.3]136:5/o Er vergißt sogar die einfache Reflektion, daß, wenn y Ellen Leinwand = x lbs Stroh, diese Gleichheit zwischen den ungleichen Dingen Leinwand und Stroh sie zu gleichen Größen macht.

I took my liberties with this

translation: I translated "equality

between" as "equalization of."

↓ Now Marx supplies the explanation which Bailey "forgets," the mildly exasperated "obviously" (*doch*) meaning that it is so simple that Bailey should not have missed it. If linen and straw are set equal, they are interpreted as values, although in their immediate existence they are use-values:

[mecw32]326:3/o Their determinate being as something equal must obviously be different from their determinate being as straw and linen. They are not set equal to each other as straw and linen, but as equivalents. The left side of the equation must therefore express the same value as the right. The value of straw and linen can therefore neither be straw nor linen, but it must be something that both have in common and something that is different from both.

[mew26.3]136:5/o Dies ihr Dasein als Gleiches muß doch verschieden sein von ihrem Dasein als Stroh und Leinwand. Es ist nicht als Stroh und Leinwand, daß sie sich gleichgesetzt sind, sondern als Äquivalente. Die eine Seite der Gleichung muß daher denselben Wert ausdrücken als die andre. Der Wert von Stroh und Leinwand muß also weder Stroh noch Leinwand sein, sondern etwas beiden Gemeinsames und von beiden als Stroh und Leinwand Unterschiedenes.

↑ This passage from *Theories* began as a condensed summary of the argument Marx has made here in *Capital* starting with 46:2. But when it arrives at the paragraph we are presently discussing, it gives the argument in more detail than *Capital*. What in *Capital* is called "equal quantities of a common ingredient" is in *Theories* given a name, it is called "value." But Marx does not say *what* value is. The link between value and *labor* is not mentioned. The passage in *Theories* also throws light on the formulation "neither the one nor the other" in the sentence 47:1 presently discussed. And finally it justifies something I asserted in the notes to 46:3/o, namely, that the equality between unequal use-values must pertain to a *deeper* level.

One additional comment not about something Marx writes, but about a question or objection a reader might have. After "hearing" the surface relations *say* that the commodities are equal, despite their inequalities as use-values, Marx has inferred that the surface relations must refer to an equality in production, not on the surface itself. Then Marx immediately jumps to the conclusion that the commodities actually *are* equal in the sphere of production. Why does Marx assume here that the surface relations tell the truth about the underlying sphere of production? This needs an explanation because capitalism is full of examples where the surface relations are *not* telling the truth. Marx does not give such an explanation, and here is my own attempt to supply a justification of this step in Marx's argument. Marx's assumption that the surface activity fits together with the structures in the hidden sphere of production can be justified as follows. Exchange, in which the commodities are treated as

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equals, can only then play the important role in the capitalist economy which it does play, if this exchange successfully mediates what is going on in production. Treating the commodities as equals in the exchange only makes sense if the commodities are already equal *before* being exchanged. This general principle, that surface and underlying relations must hang together coherently, is silently invoked by Marx not only here but also in several other places.

Question 96 *Isn't it gullible of Marx to believe that commodities are equal just because their exchange interactions on the surface say that they are equal?* [2013fa](#), [2012fa](#).

Wheat and Iron are Reducible to a Common Substance ↓ After having gone from the surface down to the underlying depth relations, Marx describes how the depth relations relate to the surface relations. (Relations *between* relations are very important for understanding society.) For this he introduces a new concept, the concept of reduction.

Each of the two, so far as it is exchange-value, must therefore be reducible to this third.

Jedes der beiden, soweit es Tauschwert, muß also auf dies Dritte reduzierbar sein.

↑ In the first edition, p. [\[megaII/5\]19:1](#), and in *Value, Price, and Profit*, p. [\[mecw20\]121:2](#), this sentence contains the additional clause that each must be reducible to this third *independently of the other* (my emphasis). In the *Revision Manuscript*, first sentence of [\[megaII/6\]30:3](#), Marx summarizes this step with the words that *each by itself* was reduced. The phrases I just italicized help us understand what Marx means with the word “reduce.” It is the reduction of a relation *between* the partners in this relation (the commodities) to a substance contained *within* each of the partners in the relation. The polygon analogy in the next paragraph clarifies this reduction.

Question 97 *How are the following statements related to each other:*

Wheat and iron have a common ingredient

Wheat and iron are equal to a third

Wheat and iron are reducible to a common substance [2012fa](#).

Question 98 *First give Marx's arguments how one can come to the conclusion that exchange-value is not something immanent in the commodity. Then reproduce, in your own words, Marx's rebuttal that, despite these arguments, exchange-value seems to be something immanent to the commodity after all.* [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2005fa](#), [1996sp](#).

[Polygon Analogy] The concept of reduction just introduced is illustrated by an analogy from High School geometry. Alternative formulations of this analogy can be found in *Value, Price, and Profit*, p. [\[mecw20\]121:3](#) and *Theories of Surplus-Value* 3, footnote to [\[mecw32\]330:1](#).

47:2 A simple geometrical example may make this clear. In order to determine and compare the areas of polygons, one decomposes them into triangles.

51:3 Ein einfaches geometrisches Beispiel veranschaulicht dies. Um den Flächeninhalt aller gradlinigen Figuren zu bestimmen und zu vergleichen, löst man sie in Dreiecke auf.

↑ This decomposition into triangles is an operation in the space of visible geometrical shapes. After this decomposition is made, Marx dives into a different space, inhabited not by geometrical shapes but by numerical expressions:

Every triangle is then reduced to an expression entirely different than the triangle's visible shape, namely, half the product of the base times the altitude $ba/2$.

Das Dreieck selbst reduziert man auf einen von seiner sichtbaren Figur ganz verschiedenen Ausdruck—das halbe Produkt seiner Grundlinie mit seiner Höhe.

↑ Again, the word “different” is an understatement signaling the transition into a completely different space. (Such transitions can be very informative. Modern Algebraic Geometry systematically uses a parallel approach to geometric figures. It looks at the same figures from a spacial and from an algebraic angle, in order to get a fuller grasp of the structure of such figures.)

The polygon analogy casts additional light on the equality relationship on the surface. Marx compares the surface relations of commodities with the geometric relations between polygons. The so-called “Wallace-Bolyai-Gerwien theorem,” see for instance [Fre97, chapter 19], is probably the math intuited in Marx's polygon analogy. Here is my formulation of this theorem:

Polygons (i.e., figures in the plane bounded by straight lines) are related with each other in the following way. I call this the “disect and cover comparison.” Between two arbitrary polygons, call them A and B , exactly one of the following three possibilities of interaction holds:

- it is possible to cut polygon A into a finite number of pieces and place these pieces on top of B in such a way that B is completely covered by them, but it is *not* possible to cut polygon B into a finite number of pieces and place these pieces on top of A in such a way that A is completely covered by them.
- it is possible to cut polygon B into a finite number of pieces and place these pieces on top of A in such a way that A is completely covered by them, but it is *not* possible to cut polygon A into a finite number of pieces and place these pieces on top of B in such a way that B is completely covered by them.
- it is possible to cut polygon A into a finite number of pieces and place these pieces on top of B in such a way that B is completely covered by them, *and* it is also possible to cut polygon B into a finite number of pieces and place these pieces on top of A in such a way that A is completely covered by them.

This cutting can be a tricky geometrical exercise, but one of the three cases always holds. The main difficulty that matters here is that one must have access to both polygons at the same time and must bring them in contact with each other to check which of the three cases holds.

Of course, the reader knows that there is an alternative procedure which can be implemented much more easily and which does *not* require the polygons themselves to interact with each other. All one has to do is to measure the area of both polygons separately, by decomposing each into triangles and adding the areas of these triangles. After this, one no longer needs the two polygons themselves but only the two numbers representing their areas, to decide which of the above cases holds:

- If the area of A is strictly bigger than the area of B , then the first possibility above holds.
- If the area of B is strictly bigger than the area of A , then the second possibility above holds.

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- If the areas of *A* and *B* are equal, then the third possibility above holds.

The existence of the alternative procedure, which only requires one to look inside each polygon separately in order to know the outcome of their dissection relationship, is formulated by Marx with the words that the dissection relation can be *reduced* to the areas of the polygons. All this is related to the fact that area is mathematically a *measure*, i.e., a conservation quantity under dissection.

[Next Steps in the Analysis of Commodity Relations] Marx brings the polygon analogy because he thinks that the surface relation between *commodities* can be reduced in a similar way. There is a social substance in each commodity, called value, which fully explains how the commodities relate to each other on the surface. Just as the areas of two polygons fully determine which of the three alternative of the “disect and cover” relation holds, so do the values of two commodities determine their market relations. In the First edition, p. [megall/5]38:1, Marx writes about commodities: “Their *social* relation consists exclusively in counting for each other as only quantitatively different, but qualitatively equal (and therefore replaceable by one another and exchangeable with another) expressions of this social substance which they share.” Here is the text from the Fourth edition:

In the same way, it is our task to reduce the exchange-values of the commodities to a *common substance* of which the commodities represent a greater or smaller amount.

Ebenso sind die Tauschwerte der Waren zu reduzieren auf ein *Gemeinsames*, wovon sie ein Mehr oder Minder darstellen.

Marx writes “*ein Gemeinsames*” (a common), which is parallel to “*ein Gleiches*” (an equal) earlier in 46:3/o. I deliberately did not translate “*ein Gleiches*” with “something equal” because

“something” has the word “thing” in it, although Marx had not yet derived that the commonality is an equal “substance.” But this time, Marx adds “of which they represent a greater or smaller

amount,” therefore it is clear that he is thinking of a substance, therefore “*ein Gemeinsames*” is translated as “an equal substance.”

↑ Earlier, in 46:3/o, Marx said that the exchange-values of wheat express an “equal content.” This content could have been *any* social relation in the sphere of production, it did not have to have the properties of a substance, i.e., it did not have to be “stuff.” Now Marx can be more precise; all commodities contain a “common *substance*,” and in their interactions as exchange-values the commodities represent a “greater or smaller amount” of this substance. Marx also has a name for substance; he calls it “value,” see 48:4. Whenever Marx speaks of the commodity “as values,” he is referring to this common substance inside the commodities and the relationships commodities have with each other because of this common substance.

Four remarks about this:

(1) This reduction of commodity relations to value must be amended by the fact that in capitalism *all* economic relations between people go through their commodities. This explains Marx’s strange language that *commodities* have relations with each other. Marx will make this point in the section about the fetish-like character of the commodity.

(2) The reducibility of certain social relations to a “social substance” is an interesting addition to the variety of ways how social relations give rise to practical actions. Some social relations govern *individual* behavior (driving on the right side of the road), others govern *interactions* between people (if your boss gives you an order you have to obey in most cases). Other social relations are socially evolved signs, something which was already mentioned, and which we will get to know better when we study the form of value. Here we

have a social relation which gives additional rules (in addition to the physical properties of the objects) how people have to handle certain *objects*, namely commodities: they have to handle them as if they were blobs of a homogeneous substance.

(3) The reducibility to a substance means that value *restricts* what the relations between commodities can be like. This fits together with Terrence Deacon's idea about what a causally efficacious absence does, see [Dea12].

(4) One should not infer from this that as values, commodities can be looked at in isolation from society, all one needs the labor time spent in their production. Value differs from physical substances in that it is a *socially connected* substance. Marx says this explicitly in the *Revision Manuscript*, [megall/6]30:3.

At the present stage in the derivation, we have come to the conclusion that a common substance exists to which all relations between commodities can be reduced, we know the name of this common substance ("value"), but we don't know yet what the common substance is. Marx is going to identify it as "congealed abstract labor." The existence of this substance is still a conjecture, which needs confirmation by (a) actually finding a common substance in the commodities and (b) showing that this common substance is responsible for the exchange relations on the surface which we are trying to explain. (a) will be the subject of the rest of section 1.1 (called here subsection 1.1.c) and of section 1.2, and (b) will be the subject of section 1.3.

Assuming this confirmation is forthcoming, a "resolution" can be offered to the contradiction Marx grappled with in the passage called here subsection 1.1.b, that exchange-value seems on the one hand immanent in the commodities, and on the other purely relative and accidental. Exchange-value seems immanent because it is the expression of a substance *inside* the commodities, and it seems relative because this expression takes the form of a *relation* between different commodities. I put quotes around "resolution" in view of 113:2, that real contradictions never get resolved. Already the next step of the derivation confronts us with the same contradiction again in a new guise.

1.1.c. [From Value to Labor]

At this point in the development, we have inferred, from observing the surface interactions of commodity owners, that commodities share a common substance, but we do not yet know what this common substance is. Marx's search for the common substance in all commodities proceeds in three steps.

- First Marx argues that this common substance has nothing to do with use-value. He supports this with the subsidiary claim that the exchange relations *abstract* from use-values. This subsidiary claim will also play a role in the third step.
- Marx takes over the insight of Classical Economics that the commonality of commodities expressed in their exchange is that all commodities are the products of *human labor*.
- Although Marx agrees with this, he finds the argument incomplete. In the statement "all commodities have in common that they are the product of human labor," the word "human labor" is an abstraction standing for many very different labor processes. Giving different processes, such as tailoring, weaving, baking, cobbling, the same name "labor," does not make these processes themselves equal. Marx still has to find something which all these diverse processes have in common. Marx conducts his search

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through yet another thought experiment, which carefully looks at what happens to the products of the different labor processes when they are subjected to the abstraction of the exchange. They emerge as a jelly of abstract human labor. What commodities have in common is therefore: they are jellied-up abstract human labor. This is my own word for it; Marx's word for what I call here "jellied-up abstract labor" is "value quasi-material" (*Wertgegenständlichkeit*).

After this summary let us follow Marx's argument in detail.

[Substance of Value has Nothing to do with Physical Matter]

Marx just spent several paragraphs to draw the subtle and painstaking inference that exchange-value is the expression of some common substance inside the commodities. The very next paragraph seems to shatter this result. In this paragraph, Marx comes to the conclusion that there is no common substance inside the *physical bodies* of the commodities. This conclusion is stated right at the beginning:

47:3–48:1 This common substance cannot be a geometrical, physical, chemical, or any other bodily property of the commodities.

51:4–52:2 Dies Gemeinsame kann nicht eine geometrische, physikalische, chemische oder sonstige natürliche Eigenschaft der Waren sein.

[Argument in Value, Price, and Profit] *Value, Price, and Profit*, p. [mecw20]121:5/o, comes to this conclusion by the simple argument that exchange-value is social and therefore has nothing to do with the natural qualities of the things.

Question 102 *Marx's pamphlet Value, Price and Profit and his book Capital both say that exchange-value does not depend on use-value. In Value, Price and Profit Marx supports this claim with a very simple argument: exchange-value is social and therefore cannot depend on the physical properties of a commodity. In Capital he uses a different and more intricate argument to come to the same conclusion. Why didn't he use the same simple argument as in Value, Price and Profit?* 2011fa.

[Argument in the First Edition of Capital] The First Edition arrives at the same conclusion (and more) from a closer look at the character of the exchange relations. This argument is then elaborated in the Second and later editions. In order to fully understand of this elaborated argument we will first look at the simpler version in the First edition, and then look at the additions to the argument in the later editions. Marx writes on p. [megaII/5]19:3:

That the substance of exchange-value is something quite different from and independent of the physical-tangible existence of the commodity (which is at the same time the commodity's determinate being as *use-value*), can be seen by a quick glance at the exchange relation. The characteristic of the exchange relation is exactly the *abstraction from use-value*. For, if considered according to its exchange-value, one commodity is just as good as any other, as long as it is present in the right proportion.

Daß die Substanz des Tauschwerths ein von der physisch-handgreiflichen Existenz der Waare oder von ihrem Dasein als *Gebrauchswerth* durchaus Verschiedenes und Unabhängiges, zeigt ihr Austauschverhältniß auf den ersten Blick. Es ist charakterisirt eben durch die *Abstraktion vom Gebrauchswerth*. Dem Tauschwerth nach betrachtet ist nämlich eine Waare grade so gut als jede andere, wenn sie nur in richtiger Proportion vorhanden ist.

In the Second edition, Marx adds the following sentence (which is identical to 47:3–48:1 in the Fourth edition):

As use-values, commodities are above all of different qualities, as exchange-values they can only be of different quantities, therefore do not contain a single atom of use-value.

Als Gebrauchswerthe sind die Waaren vor allem verschiedner Qualität, als Tauschwerthe können sie nur verschiedner Quantität sein, enthalten also kein Atom Gebrauchswerth.

↑ The main argument is here that the market exchange relations make an *abstraction*. This does not mean that commodity traders disregard use-value when they make their exchanges! In chapter Two, 95:1/o, Marx will discuss the dilemmas for the commodity traders, who must reconcile their individual needs for *use-values* with the social constraints imposed by the exchange-values. Although the individual commodity traders, in their thinking and acting, do *not* abstract from use-values, Marx claims that the *exchange relations* which enable and compel individual commodity owners to make exchanges *do* abstract from use-values. Marx supports this claim by two simple practical considerations:

- Every act of exchange replaces one use-value by another, i.e., it makes the use-values *impermanent*.
- This switching-out of use-values is an essential characteristic of the exchange relations, because commodities are exchangeable only if their use-values are *different*. (This argument was added in the Second edition [megaII/6]71:4/o.)

It is easier to understand Marx's abstract arguments if one finds some practical situation or interaction in society where this aspect of the Marx's abstract argument steps in the foreground. This goes beyond Marx's text but I hope the reader will still find it useful. This is one of the ways how these Annotations try to clarify Marx's text for the reader.

Here is a situation where the fact (alleged by Marx) that exchange relations abstract from use-values becomes a practical issue: Think of commodity producers observing the market in order to decide what to produce next. They do not know *why* the linen weaver is trading linen for coats. The use-values blur into each other. No particular use-value leaves a distinctive footprint, they all count as the same. Use-values can therefore not be what governs the exchange proportions in the long run. These exchange proportions it must be governed by something other than the use-values of the traded commodities. As we said earlier, the exchange proportions (and other aspects of the exchange relations) are *remotely controlled*.

Question 103 In 127:4–128:1, Marx says that the exchange relation is characterized by an abstraction from use-values. What does this mean? Explain it in such a way that your 12-year old would understand. 2012fa, 2011fa, 2010fa.

Question 104 Marx says that the exchange-relations are characterized by an abstraction from use-values. But use-values do affect the exchange proportions. If a use-value is in high demand compared to supply, then it commands a higher exchange-value. If a competitor brings out a better product, the firm's own product may not sell any more. Can this be reconciled with the claim of abstraction from use-value? 2012fa, 2011fa, 2010fa, 2008fa, 2007SP, 2005fa.

[Argument in the Second and Later Editions of Capital] In the later editions, this argument is subdivided into three somewhat tedious steps taking up the rest of paragraph

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47:3–48:1. (In the MEW edition and the translations, the paragraph itself is broken up because the Barbon quote was turned into a display quote. But Marx had originally written it as one solid paragraph.) If you are willing to accept the conclusion you may skip over the rest of this paragraph and continue with 48:2. For those with enough patience, here is the version of this argument as it is made in the final editions of *Capital*. Remember, Marx plopped down the claim in front of the reader that the common substance to which the exchange values can be reduced is not one of the bodily properties of the commodities. Now he is going to substantiate this claim. The first step is the following:

The bodily properties of commodities enter the picture only in so far as they make the commodities useful, i.e., turn them into use-values.

Ihre körperlichen Eigenschaften kommen überhaupt nur in Betracht, soweit selbe sie nutzbar machen, also zu Gebrauchswerten.

The Moore-Aveling translation says: “Such properties claim our attention only in so far as they affect the utility of those commodities, make them use-values.” It is wrong to speak

here about “our” attention. Marx is not explaining why he as a researcher looks at the bodily properties of the commodities, but he investigates how the economic agents themselves relate to their

commodities. One might say that the translation turned an ontological question into an epistemological one.

↑ The bodily properties of a commodity are relevant for *production*, because producers have to know exactly how to put the product together. But these engineering details do not concern the commodity traders in the sphere of circulation. For them, the bodily properties are only interesting to the extent that they affect the use-values of the finished products. ↓ But these use-values cannot contribute to the common substance which the commodities have as exchange-values, because it is exactly the purpose of exchange to replace one use-value by another. Marx calls this an abstraction:

On the other hand, however, it is exactly the abstraction from the use-values of the commodities which evidently characterizes their exchange relation.

Andrerseits aber ist es grade die Abstraktion von ihren Gebrauchswerten, was das Austauschverhältnis der Waren augenscheinlich charakterisiert.

In the French edition [megaII/7]21:4/o, the above sentence has two parts. The first half of the sentence speaks about the actions of the commodity traders:

But on the other hand it is evident that one abstracts from the use-value of the commodities when one exchanges them ...

Mais d’un autre côté il est evident que l’on fait abstraction de la valeur d’usage des marchandises quand on les échange

To repeat, this cannot mean that the trading partners disregard the use-values, but that the act of exchange itself is an act of abstracting from the use-values, since it replaces one use-value by another. In the second half, Marx makes the transition from the individual acts of exchange to the exchange relations “themselves:”

... and that every exchange relation is itself characterized by this abstraction.

et que tout rapport d’échange est même caractérisé par cette abstraction.

↑ This is relevant for the commodity producers observing the market, who can see the exchanges, but do not have insight into the motivations of the traders on the market.

↓ Back to the German. Marx’s evidence for the the exchange relations being “characterized by abstraction” is the following simple practical fact:

In this exchange relation, one use-value is just as good as another, as long as it is present in the proper quantity.

Innerhalb desselben gilt ein Gebrauchswert grade so viel wie jeder andre, wenn er nur in gehöriger Proportion vorhanden ist.

↑ This short proof of Marx's subsidiary claim that the exchange-relations are characterized by an abstraction from use-values concludes the proof that use-value cannot enter the "common substance," and in the First edition, this paragraph ends here. ↓ In the Second edition, the paragraph is made longer. First Marx adds some quotes documenting that this abstraction from use-values has been observed in the literature:

Or, as old *Barbon* says, "One sort of wares are as good as another, if the values be equal. There is no difference or distinction in things of equal value."⁸

Oder, wie der alte *Barbon* sagt: „Die eine Warensorte ist so gut wie die andre, wenn ihr Tauschwert gleich groß ist. Da existiert keine Verschiedenheit oder Unterscheidbarkeit zwischen Dingen von gleich großem Tauschwert.“⁸

Footnote 8 gives the reference [Bar96, p. 53], and adds a different passage from the same source [Bar96, p. 7], which again says that exchange relation make abstraction from use-values:

⁸ "One sort of wares are as good as another, if the values be equal. There is no difference or distinction in things of equal value . . . One hundred pounds worth of lead or iron, is of as great a value as one hundred pounds worth of silver and gold." (N. Barbon, l.c. pp. 53 and 7.)

⁸ „One sort of wares are as good as another, if the values be equal. There is no difference or distinction in things of equal value . . . One hundred pounds worth of lead or iron, is of as great a value as one hundred pounds worth of silver and gold.“ (N. Barbon, l.c. p. 53 u. 7.)

The implication of the exchange relations being, as Marx says, "characterized by abstraction" is that use-values are not part of the information available to the producers who analyze the multitude of exchange acts happening on the market.

[Alternative Argument in the Second and later editions] ↓ Marx concludes the paragraph with an alternative short but very abstract proof that the common substance cannot have anything to do with use-value. The connection to the previous argument lies in the fact that commodities are exchanged because their use-values are qualitatively different. So far as they are exchange values, however, commodities can only have quantitative differences. These exchange-values can therefore not derive from their qualitatively different use-values. As use-values, commodities are, above all, of different qualities; as exchange-values they can only be of different quantities, and consequently do not contain an atom of use-value.

Als Gebrauchswerte sind die Waren vor allem verschiedener Qualität, als Tauschwerte können sie nur verschiedener Quantität sein, enthalten also kein Atom Gebrauchswert.

↑ This is an application of the general principle that two things which are quantitatively different must be qualitatively equal—since one cannot compare apples and oranges.

It should be noted that despite Marx's arguments here that value cannot come from use-value, neoclassical economics tries to derive value from use-value.

[Commodities Have Labor in Common]

Commodities must contain something equal, but Marx eliminated the most prominent candidate for that equal thing when he said that it cannot have anything to do with their use-values. What else can it be? ↓ Marx answers this with the bold assertion that there is only one other thing which the commodities have in common. One might call this a "Gordian Knot" inference.

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48:2 If we then disregard the use-value of commodities, they have only one property left, that of being products of labor.

52:3 Sieht man nun vom Gebrauchswert der Warenkörper ab, so bleibt ihnen nur noch eine Eigenschaft, die von Arbeitsprodukten.

↑ This is formulated as if one could reach this conclusion through a purely deductive thought process, i.e., as if abstraction from use-value would lead one immediately to labor as the only property left. In *Contribution* and in the First edition of *Capital*, however, Marx does not make the sweeping claim that labor is the *only* property left. In *Contribution*, 270:3/o, Marx says that the use-values traded as commodities have a dual character: on the one hand, they are means to support human life, and on the other, they are also the products of human life. While the first aspect does not give commonality to the commodities, the second aspect does. In the First edition, 19:5, Marx first says that the common substance must be something *social* since it is not natural, and then he introduces labor—with a dash, and without the claim that labor is the only possibility.

While the Second and later editions of *Capital* formulate the transition to labor as if it was a logical necessity, they make even fewer efforts than the First edition or *Contribution* to give a *proof*. Obviously, the Second and later editions do not bring all the possible arguments in favor of this conclusion. The transition to labor must therefore be considered an additional judgment about commodity producing societies, which is *related* to the earlier judgments, but cannot be *derived* from them. Although it is possible to read off the surface relations that exchange-value must be a form of appearance of something (which Marx calls value) located in a different sphere, these surface relations by themselves do not allow us to deduce where value is located and how it originates.

Since it was generally accepted in classical theory (the economic mainstream when Marx wrote) that there was a link between value and labor, Marx apparently did not find it necessary to bring more arguments that such a link exists. In *Contribution*, 275:1/o, Marx writes: Everybody intuitively more or less clearly that the relations of commodities as exchange-values are rather the relations of the persons to their mutual productive activities.

Es schwebt allen mehr oder minder vor, daß das Verhältnis der Waren als Tauschwerte vielmehr Verhältnis der Personen zu ihrer wechselseitigen produktiven Tätigkeit ist.

This does not mean that the labor theory of value itself was part of common consciousness. But as long as the labor theory of value was the consensus view among economic theorists, the pre-scientific reflection that labor must matter for the exchange-values of the goods had become common sense. Marx would probably have made a more forceful defense of the link between labor and value, had he foreseen that such a link would eventually become deeply discredited, not only in mainstream economics but also in the common sense view of lay persons.

Question 107 Prior to Marx, Ricardo counts as the main author of the “labor theory of value” according to which value is determined by labor. An American businessman who late in his life became an economist criticized the labor theory of value with the following words: “Mr. Ricardo’s system is one of discords . . . its whole tends to the production of hostility among classes and nations . . . His book is the true manual of the demagogue, who seeks power by means of agrarianism, war and plunder.” [Car48] Why do capitalists generally not like the labor theory of value? 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2008SP, 2007SP, 2004fa, 1996ut.

Exam Question 109 “Exchange-value cannot be anything other than the mode of expression, the ‘form of appearance’, of some substance distinguishable from it” (p. 127:1). Please answer all questions below:

- a) How did Marx come to this conclusion by observing the exchange relations between commodities?
- b) What is this substance distinguishable from the exchange-value?
- c) Does mainstream economics distinguish between exchange-value and the substance expressed by exchange-value?
- d) Why is this substance equal for all commodities?
- e) How does Marx argue that this substance does not come from their use-values?
- f) How does Marx come to the conclusion that this substance comes from labor? [2013fa](#), [2012fa](#), [2008fa](#), [2008SP](#).

[Abstract Labor and its Failed Materialization]

Instead of spending many words on *defending* the labor theory of value, Marx critically builds on it. He emphasizes one aspect of it which the classical economists had ignored, namely, the *quality* of the labor reflected in value. The argument which follows next is Marx’s own; it cannot be found in the earlier versions of the labor theory of value in classical political economy.

Classical economics before Marx argues that *labor* is the commonality expressed in the exchange of commodities. Marx sees a dilemma here which the earlier economists had overlooked. It is true, all commodities are the products of labor, but how can labor be called their *commonality* if the labors producing different products are very *different* from each other? That what underlies exchange must be something homogeneous, one-dimensional. If we call all the different activities which produced these things “labor” we are making an abstraction in our brain, but we are not yet pinpointing a commonality in all commodities—unless this abstraction is *real*, it not only subtracts and disregards but it also isolates something all labor processes indeed have in common. In order to find this commonality, Marx conducts another thought experiment which reasons out what the abstraction of the exchange-process does to these different kinds of labor.

[Metaphor of the Abstract Glare] After his bold assertion that labor is the only property left which the commodities have in common, Marx looks at what happens to labor in the production process if the use-values are abstracted from in circulation. This part of the derivation enters a metaphorical, almost dream-like realm as Marx allows the reader to witness his immersion into the subject.

However, the product of labor has already been mutated in our hands.

Jedoch ist uns auch das Arbeitsprodukt bereits in der Hand verwandelt.

French edition, p. [megaII/7]22:1:
“Mais déjà le produit de travail
lui-même est métamorphosé à

notre insu.”
Fowkes: “Even the product of
labor has already been transformed

in our hands.” Moore-Aveling has
an “itself” which is not in the
German, but in the French.

↑ Of course, the products themselves are *not* mutated (changed) because the surface activity makes abstraction of their use-values. Marx’s derivation can perhaps be understood best if we put ourselves in the shoes of the private producers who watch market outcomes in order to decide what to produce and how. If the surface activity on the market makes abstraction

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from the use-values, then the producers receive signals which do not say anything about use-values. This has implications for their decisions how to allocate their labor or the labor of their workers. Instead of saying: if the market makes abstraction from use-values, then only this and this (to be specified below) remains visible to the producers taking their cues from the market, and this causes them to make certain kinds of production decisions, Marx uses the metaphor of us, the readers, picking up the product with our hands and looking at it with a look that abstracts from its use-value, and the product itself changing because we look at it (as if our abstract glare had set it on fire or thrown it into an acid bath), and these changes then retroactively also seizing the labor process producing these products. For Marx himself this was not a metaphor, but he invites the reader to join him while he immerses himself into the subject.

↓ The next several sentences stay with this metaphor that “we,” the readers of *Capital*, change the products of labor by abstracting from their use-values. Marx proceeds slowly and thoroughly, first going from the use-value of the product of labor to its bodily shapes:

If we abstract from the use-value of the product of labor, then we abstract at the same time from the bodily constituents and shapes that make it a use-value.

Abstrahieren wir von seinem Gebrauchswert, so abstrahieren wir auch von den körperlichen Bestandteilen und Formen, die es zum Gebrauchswert machen.

↑ If market interactions of the commodity owners have the effect of abstracting from the use-values, i.e., making use-values invisible for the producers observing the market, (this is a relationship between commodity owners trading their commodities on the surface) then this means for the products themselves that their bodily shapes and components have become irrelevant (this is the implication of this surface relationship for the producers of the commodities). The switch from the use-value to the bodily characteristics of the commodities seems pedantic—after all, in 46:1 Marx had obtained permission to ignore this distinction—but here he must resurrect this distinction because it is a switch from the perspective of the consumers, who look at the commodities as use-values, to the perspective of the producers, for whom the commodities are things which need to receive, in the production process, certain bodily characteristics that make them useful to consumers. ↓ The next two sentences illustrate this abstraction from the bodily properties:

It is no longer a table, a house, yarn, or any other useful thing. All its sensual properties are extinguished.

Es ist nicht länger Tisch oder Haus oder Garn oder sonst ein nützlich Ding. Alle seine sinnlichen Beschaffenheiten sind ausgelöscht.

↑ The “it” in these two sentences is the product of labor. Of course, it is still relevant that the product has *some* useful properties, but due to the magic of the markets, which can turn every use-value into every other use-value, it no longer matters *which* useful properties a given product of labor has. (One might object here that some use-values are more in demand than others, but at the present stage of his derivation Marx does not yet talk about the mechanisms which bring supply and demand in line, but assumes instead that every use-value is needed.)

[Glaring at Production Yields a Glimpse of Abstract Labor] ↓ Next, Marx discusses the implications for *production*: the abstraction from the bodily constituents and shapes of the product of labor makes it irrelevant what kind of labor produces the commodities.

It is therefore no longer the product of carpentry, masonry, spinning, or any other specific kind of productive labor.

Es ist auch nicht länger das Produkt der Tischlerarbeit oder der Bauarbeit oder der Spinnarbeit oder sonst einer bestimmten

| produktiven Arbeit.

To avoid confusion, the translation used the words “carpentry,” “masonry,” and “spinning,” and

stayed away from any composites which have “labor” in them. The choice of labors parallels the

sentence before last: “It is no longer a table, a house, yarn.”

↓ Although the question on the table is still: “how did the *products* of labor change in our hands?” the next long sentence no longer discusses the *products* of labor but the *labor* whose products are traded on the market. A summary short version of this sentence is: “along with the changes in the products of labor, the labor itself changes as well.” This is an extension of Marx’s original metaphor: our abstract glare not only plunges the products into an acid bath but retroactively also modifies the labor which produced these products. This extension of the metaphor comes with an extension of Marx’s field of vision: he no longer limits himself to looking at the signals which the market sends to the producers, but he also looks at the producers’ *reactions* to these signals. If they see that all commodities on the market are treated as equals, regardless of the bodily shapes and components of these things, the producers’ reaction must be that they themselves disregard the differences between the *labors* producing the different useful things.

Along with the useful characteristics of the products of labor, the useful characteristics of the various kinds of labor represented in them disappear.

Mit dem nützlichen Charakter der Arbeitsprodukte verschwindet der nützliche Charakter der in ihnen dargestellten Arbeiten, ...

↑ His latest step should be read as: if we abstract from use-values, we are not making abstraction of the labor altogether, but only of the kind of bodily properties this labor imparts on the product. The boundary condition here is that something *must* remain. We know that capitalism is functioning and the economy is expanding, therefore we know the capitalists do not react to the market’s abstraction from use-value by laying off their workers. They keep their laborers but they employ them differently. And if we think not of capitalism but of simple commodity production, the producers still have to eat, they must continue producing. Marx himself is not looking at these specific situations, but he is trying to distill what all these situations have in common. But this abstract argument may be easier to follow for the reader if he or she has the concrete situations in mind which these Annotations try to evoke.

In order to find out what remains of the labor after abstraction from use-value, Marx proceeds carefully through several steps. ↓ The next step is: in order to be able to impart different bodily properties on the product, the labor processes themselves must be different. These differences disappear as well:

Therefore, also the different concrete forms of these labors disappear.

... es verschwinden also auch die verschiedenen konkreten Formen dieser Arbeiten,

↑ The labors themselves do not disappear, but their differences disappear. Marx makes this a separate step in his chain of arguments because different labor processes are usually performed by different workers. Exchange of commodities presupposes a division of labor. ↓ By contrast, that aspect of labor that produces value is homogeneous:

They no longer differ from each other,

... sie unterscheiden sich nicht länger,

↓ Since our abstraction erases that which makes the different labors different, what remains must be what all labor have in common:

but are altogether reduced to equal human labor, human labor in the abstract.

sondern sind allzusamt reduziert auf gleiche menschliche Arbeit, abstrakt menschliche Arbeit.

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↑ That what all human labors have in common is called here “human labor in the abstract,” which means, labor “indifferent towards the particular form of labor” (*Contribution*, 271:1). Marx also calls it “equal human labor,” which contains the hint that this substance of value is something social (since equality is a relation between *different* labors). Unfortunately, this is all Marx says about human labor in the abstract at this point.

Let us pause here and look around where we are. If the exchange relations on the surface abstract from the useful qualities of the products of labor, this has an impact on the private producers, who observe the market for their production decisions. It does not lead them to abstract from labor altogether, but it leads them to abstract from the characteristics which differentiate different kinds labor. In other words, they are led to treat all labors as equal, as one homogeneous mass.

But it is possible for them to do this consistently and successfully only if the labors are indeed a homogeneous mass. The background assumption is here again that the system as a whole fits together. The surface relations would have been modified or discarded long ago if they did not fit together with the underlying production relations. The question arises therefore: what do all the different activities which we call “labor” have in common? Language already anticipates that they have *something* in common since we are using the same word “labor” for them. (Marx remarks on this in the Introduction to *Grundrisse*, [mecw28] 40:2/o.) At the present point, Marx has not answered this question other than by giving a name to that which is common to all labors (he calls it equal human labor or abstract human labor), and letting the reader guess what this name refers to.

Question 110 Take two very different kinds of labor, such as teaching and construction work, and discuss in what respect they are equal. 2013fa, 2012fa, 2011fa, 2010fa.

This is the end of the brief “glare at production,” and also the end of the paragraph. This end is a little abrupt, since the reader is left wondering what it is that all human labors have in common. Marx will devote the entire section 2 of chapter One to this, but for now he returns from the short digression about what happens to the labor itself to his earlier, still unanswered question, namely, what happens to the *product* of labor if one abstracts from its use-value. Interspersed in this further development, however, is a brief remark which is relevant for the present digression about labor: In the middle of this next step in the derivation, at 48:3, Marx says that all labors are expenditures of human *labor-power*. This is, in a nutshell, what the labors themselves have in common. The presentation of the French edition of *Capital* is improved. In French, the term “labor-power” is introduced already at the end of this paragraph here, p. [megaII/7]22:1, where it belongs, with the words:

Only the common character of these labors remains: they are reduced to equal human labor, to an expenditure of human labor-power without consideration of the particular form in which it was spent.

Il ne reste donc plus que le caractère commun de ces travaux; ils sont tous ramenés au même travail humain, à une dépense de force humaine de travail sans égard à la forme particulière sous laquelle cette force a été dépensée.

In the French edition, therefore, the brief digression about the character of commodity-producing labor has a more satisfactory conclusion—while in the German and English editions this digression ends before the last step is made, this last step being supplied a little later as a side remark in the further development.

Question 111 *Marx says that as use-values commodities do not contain an atom of value. Would he also say that the labor process does not contain an atom of abstract labor?* [2012fa](#), [2008fa](#), [2007fa](#), [2007SP](#), [2004fa](#), [1997ut](#).

If Marx therefore inferred earlier that the ubiquitous exchanges on the surface must be guiding a production structure which keeps track of some substance shared by all commodities, and that this common substance cannot have anything to do with their use-values, he argues now that this substance must have to do with labor, but it cannot be *useful* labor but must be labor as expenditure of human labor-power.

Question 113 *Is it not enough commonality to say that all commodities have labor in common? Why does this labor in addition have to be homogeneous?* [2012fa](#).

Question 114 *In 128:2, Marx says that the products of labor change if one disregards their use-value, and that this change in the products also causes the labor itself to change. Does this argument, in which the causal order of things seems exactly reversed, have any validity?* [2012fa](#), [2008fa](#), [2007SP](#).

[The Value Quasi-Material] The explanation of the quality of abstract labor as the expenditure of human labor-power is the deepest insight about value so far, but it is not the end of the current train in Marx's argument. ↓ The next paragraph returns to the original question and tells us how the *product of labor* has changed. (Later, in [61:1](#), Marx emphasizes the necessity of this additional step from abstract labor to *jellied* abstract labor.) The metaphor of the abstract glare was Marx's dream-like description of the *process* of abstraction which the commodities are subjected to on the market. Now we are waking up from this dream and looking at the results of the process. The products of labor, when bathed in the market's corrosive abstractness, emerge as something quite different from their bodily shapes:

48:3 Let us consider now what remains of the products of labor. Nothing has remained of them except the same ghostlike material, ...

52:4 Betrachten wir nun das Residuum der Arbeitsprodukte. Es ist nichts von ihnen übriggeblieben als dieselbe gespenstige Gegenständlichkeit, ...

This is finally the answer to the question how the products of labor have been mutated in our hands. As exchange-values, the products of labor only count as the ghosts of the labor-power which was consumed during their production. Section 3, [57:2](#), picks up from here and shows that these ghosts will not rest until they find reincarnation in money, the second form which the commodity needs besides its natural form. And just as a ghost consists of matter which is not of this world—although it can be seen, it *interpenetrates* with earthly matter—so do commodities, as values, consist of a non-physical yet material-like substance which Marx, literally, calls “value materiality” (*Wertgegenständlichkeit*). The definition of “materiality” or “materialness” (*Gegenständlichkeit*) as opposed to “material” (*Gegenstand*) is here: something which is like a material object without being a material object—just as the appellation “your royal highness” (*königliche Hoheit*) denotes someone who is elevated without sitting on a mountain. Marx's term “*Wertgegenständlichkeit*” will therefore be translated with the clumsy but (as I understand it) precise expression “value quasi-material.”

In the First edition of *Capital*, [\[megaII/5\]30:1](#), Marx uses the designation “abstract materiality of human labor” for what we call the value quasi-material:

30:1 In order to grasp linen as the material expression of mere human labor, one must

30:1 Um Leinwand als bloß dinglichen Ausdruck menschlicher Arbeit festzuhalten,

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disregard everything that actually makes it an object.

muß man von allem absehen, was sie wirklich zum Ding macht.

↑ Marx says here: if linen wants to be the materialization of abstract labor, it cannot be a thing. Elsewhere in the First edition he says: abstract labor cannot materialize itself as abstract labor, it has to become concrete labor in order to materialize itself.

The materiality of human labor—labor that is abstract, lacking further quality and content is, of necessity, an abstract materiality, a *thing made of thought*. Thus, cloth woven from flax becomes a phantom spun by the brain.

Gegenständlichkeit der menschlichen Arbeit, die selbst abstrakt ist, ohne weitere Qualität und Inhalt, ist notwendig abstrakte Gegenständlichkeit, ein *Gedankending*. So wird das Flachsgewebe zum Hirngespinnst.

↑ According to the editors of MEGA in [Mar87a, p. 23*], this colorful formulation raised doubts whether Marx’s analysis was indeed materialist; therefore the later editions of *Capital* express the same idea in more muted terms. This leads us back to the text we are reading, which we interrupted in mid-sentence:

... a mere jelly of undifferentiated human labor, i.e., of the expenditure of labor-power without regard to the form of its expenditure.

... eine bloße Gallerte unterschiedsloser menschlicher Arbeit, d.h. der Verausgabung menschlicher Arbeitskraft ohne Rücksicht auf die Form ihrer Verausgabung.

The metaphor “jelly” is significant. The transformation from liquid labor to jellied labor is a phase transformation. This metaphor indicates that the abstract labor spent in producing the commodity is still present as *labor*. In this respect, the abstract labor differs from the useful labor producing the commodity. The useful labor no longer exists as labor, but has been used up and is now objectified in the use-value of the commodity. Here are more details about this:

- The commodity as use-value is produced in a process in which the useful labor is used up. After the production process is finished, the useful labor no longer exists as labor but is sublated (*aufgehoben*) in its result (Marx uses the terminology that it is now *objectified* labor). Think of it as a chemical reaction: labor has bonded with materials to become something other than labor.

In chapter Seven, p. 192:5/o, Marx gives an example where this process of sublation is incomplete, i.e., where the labor itself has not entirely disappeared: an inept laborer will remind the user of his labor every time the product is used, by the flaws in the product. But the skillful labor disappears behind the product.

- As value, however, the labor itself lingers on, it continues to exist as labor and is accumulated in the commodity. It is what makes the commodity exchangeable. Marx calls it sometimes “crystallized,” sometimes “jellied-up.” This terminology indicates that the labor is no longer liquid. It has undergone a phase change, but it has not become something other than labor (it has not been sublated into its product), rather it still exists *as labor*. The laborer who produced this product still remembers the labor and keeps track of it, because he or she needs the product as proof that he or she has performed this labor and is therefore entitled to the products of the labors of others. The commodity owner can even get this labor back out of the commodity and convert it into the congelation of a different kind of labor, by exchanging the commodity for some other commodity. The producer of commodities also re-vitalizes the abstract labor represented in the means of production by continuing the production process

which had these means of production as intermediate products.

The fact that the abstract labor lives on in the commodity *as labor* is spelled out most clearly in Marx's Revision manuscript for the second edition of *Capital*, published in [Mar87a, p. [megaII/6]32:4]:

What remains is a merely phantastic objectivity—objectivity of abstract human labor, *objective form* of abstract human labor, i.e., human labor, in a coagulated rather than liquid state, in the form of rest rather than motion.

Was übrigbleibt ist eine rein phantastische Gegenständlichkeit—Gegenständlichkeit abstrakt menschlicher Arbeit, *gegenständliche Form* abstrakt menschlicher Arbeit, also menschliche Arbeit, statt in flüssigem Zustand, in geronnenem Zustand, statt in der Form der Bewegung, in der Form der Ruhe.

The German word “*geronnen*,” (meant here as the perfect participle of “*gerinnen*,” not of

“*rinnen*,”) translated here with “coagulated,” says more clearly than the word “*Gallerte*” that it is

still a liquid, although it can no longer flow but is now in a thickened state.

Not everywhere is this distinction made as clearly. As with other subtle distinctions (Quantum—Quantität, Veräußerung—Entäußerung) Marx's wording is not fully consistent; often (for instance in the upcoming 48:5/o) he talks about abstract labor “contained” or “materialized” in the product, where it would be more precise to call it “represented” by the product or “accumulated” in it. Also in chapter Thirteen, 322:2/oo, Marx uses the phrase “labor objectified in value,” which suggests sublation (which is not the correct concept here), rather than using the more accurate image of a phase change of labor.

Question 115 *Is Marx's concept of “value quasi-material” attached to commodities, but separate from their physical material, a metaphor? Is it a phantasy, an invention, which Marx needs to hold his labor theory of value together? Is Marx going overboard here? Can the value quasi-material be investigated empirically? Does it has causal powers which are not transmitted to it from something else?* 2008fa, 2008SP, 2007fa.

Question 116 *Define “value quasi-material” (Wertgegenständlichkeit). Does value quasi-material have properties similar to physical matter?* 2013fa, 2011fa, 2010fa, 2008fa, 2007SP, 1997ut, 1996ut.

But let us return to the text of the Fourth edition:

These things represent nothing but that in their production human labor-power has been expended, human labor has been accumulated.

Diese Dinge stellen nur noch dar, daß in ihrer Produktion menschliche Arbeitskraft verausgabt, menschliche Arbeit aufgehäuft ist.

Marx does not write here: “the commodity embodies the labor” but “the commodity represents the labor.” Compare 200:2. In other words, the commodity still vividly remembers that the expenditure of human labor was necessary to produce it, and it walks around telling everybody, “I am the product of social abstract labor.” However the commodities say it in the only language they are capable of, by their exchange relations (compare 62:3).

As crystals of this social substance which they have all in common they are values—commodity values.

Als Kristalle dieser ihnen gemeinsamen gesellschaftlichen Substanz sind sie Werte—Warenwerte.

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Question 119 *In every society, production implies the expenditure of human labor-power. Value is the crystallization of abstract human labor, and abstract human labor is the expenditure of human labor power. Does this mean value is a category which applies to every society?*

Five clarifications are necessary here.

(1) The word “crystal” suggests a different phase change than the metaphors “jelly” (*Gal-lerte*) or “coagulation” (*geronnen*) Marx uses elsewhere. I like the “jelly” metaphor better, because it is a state closer to being a liquid, but all metaphors involving phase change convey one important message: crystallized or coagulated abstract labor is still labor, it has not become something other than labor.

(2) In the above sentence, abstract labor is called a “social” substance, although from the development so far it would rather seem that it is a physiological substance. The social character of abstract human labor will be thematized in the next step of Marx’s discussion, in 49:1.

(3) Marx does not say that commodities *have* value, but that they *are* values as “crystals” or, in a different metaphor, as “coagulations” of abstract human labor. On many future occasions, for instance in 53:3, Marx says that “as values,” the commodities are crystals of abstract labor, or that in a commodity producing society, individuals treat their products “as values” (meaning that they reduce them to their common value quasi-material). Here is an attempt to explain this terminology. Value is a social relation. The typical social relation dictates that specific individuals must have certain kinds of interactions. The social relation “value” has a different implication for individual activity: everybody in society is compelled to act as if commodities, besides their physical body, also had some invisible material-like substance inside them, which is equal for all commodities (evidenced, for instance, by the price of the commodity). Value is therefore an *object-like social relation*, i.e., it has two contradictory aspects: on the one hand it is a social relation, on the other it is an object. If Marx speaks of value under the aspect of it being an object, he calls it “value quasi-material.”

(4) Marx is not satisfied with saying: “two commodities are exchangeable because both labors producing them are the expenditures of human labor-power.” Instead he says: commodities are exchangeable because they are the crystallizations of abstract human labor. I.e., Marx derives that what the commodities do from what the commodities are at the moment they are doing it, not from their production process which lies in the past. This is an important additional step. Value is real. A price tag can be as effective as a brick wall in preventing access. People can, so to say, bump their heads against price tags. They can starve because food is too expensive, or die of preventable diseases because they cannot afford medical care. A price tag must therefore be the expression of something *real*, a mere idea in our mind which helps us to explain something or a memory of the past cannot be so powerful. This real entity is abstract human labor. Abstract human labor is a real aspect of every labor process, it is the real something underlying value relations.

(5) The issue is complicated by the inability of abstract human labor to objectify itself. Only concrete labor can objectify itself. Marx says this in the First edition, [megaII/5]30:2/o, but the later editions tone down these formulations presumably because Marx did not want to be accused of idealism. Modern realist philosophy knows that absences can have causal effects, i.e., can be real. Bhaskar calls such real absences “de-onts.” Marx either discovered, or was tantalizingly close to discovering, that value is such a causal efficacious absence, but he did not pursue this idea because it would have been perceived as a liability in his struggle against idealism. But a modern reader does not have these constraints. We should keep

in mind that “human labor in the abstract” or “equal human labor” is a social relation in commodity societies which has its base in the material fact that every labor-process physiologically is the expenditure of human labor-power. Value is “congealed human labor in the abstract.” There is no such thing in the material world. Only concrete labor can objectify itself, abstract labor cannot. But “congealed human labor in the abstract” is close enough to something which has material reality that it itself can have causal powers. It is the ghost left behind by the human labor in the abstract in a commodity society when it is consumed in the labor process. Such ghosts can have real powers, and we will see that one of value’s main objectives is to “realize itself,” which is Marx’s misnomer for its drive to turn from a causal absence into a causal presence, from a de-ont into an ont.

Exam Question 121 *What is value (according to Marx)?* 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2001fa, 1999SP, 1997ut, 1996ut, 1996sp, 1995ut, 1995WI.

Since the concept of value was introduced in the above paragraph, it should be noted that Marx uses the word “value” in a very specific meaning. It does not refer to a “worth” or “relevance” of something to an individual, that can be defined in any society. It is that social property which makes things exchangeable in a commodity society. If in other societies certain things are generally highly “valued” (in the usual broad understanding of the concept), but they are not available for sale, Marx would not assign value to them. “Value,” as Marx is using this word, is not derived from worth, but from abstract social labor, and also does not express worth. Perhaps it is better to disregard the fact that Marx uses the word “value” for it, he might as well have used the acronym “CAL,” for “congealed abstract labor.” In other words, prices, for Marx, do not express intrinsic worth. On the contrary, the measurement of everything by abstract labor distorts society’s priorities. For a beginner, this central point of Marx’s theory is easy to misunderstand.

Question 122 *Use-value is the quality of the commodity, and exchange-value is its quantity. Right or wrong?* 2012fa, 2009fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 1999SP, 1997ut, 1996ut, 1995WI.

1.1.d. [The Quantity of Value and Individual Differences]

Section 1.1.d (our name for the last part of section 1.1 which we are about to discuss now) and section 1.2 investigate value independently of its form. The difference between section 1.1.d and section 1.2 is that section 1.1.d discusses commodities of *one* kind, the *quantity* of value, and *individual* differences in competence and dexterity of the workers producing the *same kind* of product, while section 1.2 discusses commodities which are the products of *different kinds* of labor, the *quality* of value, and the reduction of skilled labor to simple labor.

We are at a turning point in our investigation. Until now we have dug deeper and deeper into the hidden structures underlying the exchange of commodities, in order to lay bare the value of a commodity and the substance of which value consists, namely, congealed abstract human labor. From now on, the investigation is focused on value itself, not merely as that which explains exchange, but in its own right.

This new beginning is marked by a short summary. This summary is not present in the First edition or the French edition, but the Second edition, p. [megaII/6]72:3, and the Third

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edition, p. [megaII/8]70:3, contain it in exactly the same wording as the Fourth edition. An earlier version of this paragraph is preserved in Marx's *Revision Manuscript* in preparation of the Second edition, p. [megaII/6]4:2. It will be useful to first look at the beginning sentences of the *Revision Manuscript*:

One has seen: The exchange relation of the commodities itself, or the form of their *exchange-value*, characterizes this exchange value as *abstraction from use-value*. This abstraction, if actually carried out, yields the *value*, as it was just determined.

Man hat gesehn: Das Austauschverhältniß der Waaren oder die Form ihres *Tauschwerths* selbst charakterisirt ihn als *Abstraktion vom Gebrauchswerth*. Die letztre, wenn wirklich vollzogen, ergiebt den *Werth*, wie er so eben bestimmt ward.

↑ Marx distinguishes here between those things which can be read off directly from the surface (first sentence), and those which require digging (second sentence). The exchange-relations, which are plainly visible on the surface, tell us that exchange-value is an abstraction. No digging required for that. This is why Marx writes here “the exchange-relation . . . itself.” But these exchange-relations cannot reveal the *basis* for this abstraction. To say it again: By looking at the exchange-relations we could see that all commodities are treated as equals, but the basis for this equality was not apparent from the exchange-relations themselves. Additional research was necessary to find this basis. This is why Marx had to probe into deeper layers beneath the surface where exchange takes place. Marx refers to this second step of the derivation with the words “if this abstraction is actually carried out,” or perhaps one can translate it as “if this abstraction is effectively implemented.” An “effectively implemented abstraction” is not the negative act of disregarding certain aspects, but the positive act of identifying that which remains after these aspects have been disregarded.

Question 124 () What is the difference between the “exchange relation of the commodities” and the “form of their exchange-value,” two concepts juxtaposed in the *Revision Manuscript* p. [megaII/6]4:2?

After this peek at Marx's manuscript, we are in a better position to decipher this summary in its final version in the Second and later editions. ↓ It is formulated in a contracted way, but Marx obviously still had the same reasoning in mind:

48:4 In the exchange relation of the commodities themselves, their exchange-value appeared to us as something quite independent from their use-values.

53:1 Im Austauschverhältnis der Waren selbst erschien uns ihr Tauschwert als etwas von ihren Gebrauchswerten durchaus unabhängiges.

↑ The commodities themselves, through their exchange-relations on the surface, are telling us that their exchange-value is an abstraction. “Appeared to us” is in the past tense because Marx refers here to his discussion in 47:3–48:1. ↓ But the commodities are not easily revealing the basis of this abstraction to us. To find this basis, we had to actively investigate the situation—not simply read what was apparent on the surface, but search for the hidden influences beneath the surface phenomena:

Now if one really abstracts from the use-values of the products of labor, one obtains their value, as it was just determined.

Abstrahiert man nun wirklich vom Gebrauchswert der Arbeitsprodukte, so erhält man ihren Wert, wie er soeben bestimmt ward.

↑ This is a reference to and shorthand summary of the development in the two immediately preceding paragraphs, from the abstraction from use-values implied in the exchange relation in 48:2 to the homogeneous character of the “abstract human labor” represented in

the value of the commodities in 48:3. Marx writes here “value, *as it was just determined*” (my emphasis) because “value” is no longer a placeholder word for that which underlies exchange-value, as the word was used in the first edition in [megaII/5]19:4, but we know now what value is, it is *congealed abstract labor*.

The common substance which is represented in the exchange relation or exchange-value of the commodities is therefore their value.

Das Gemeinsame, was sich im Austauschverhältnis oder Tauschwert der Ware darstellt, ist also ihr Wert.

↑ We have thus answered the question posed at the end of 47:2: what is the substance inside the commodities of which exchange-value is the form of appearance?

As our investigation proceeds, it will take us back to the exchange-value as the necessary mode of expression or form of appearance of value. For the present, however, we have to consider value independently of this form.

Der Fortgang der Untersuchung wird uns zurückführen zum Tauschwert als der notwendigen Ausdrucksweise oder Erscheinungsform des Werts, welcher zunächst jedoch unabhängig von dieser Form zu betrachten ist.

The discussion of the forms of appearance of value will be given in section 1.3. But right now Marx is going to discuss quantity and quality of value, not its form. The remainder of section 1.1 focuses on the *quantity* of value (and the changes in its quantity), while section 1.2 takes a more detailed look at its quality.

48:5/o We saw that a useful article has commodity value only because abstract human labor is *objectified* or *materialized* in it.

53:2 Ein Gebrauchswert oder Gut hat also nur einen Wert, weil abstrakt menschliche Arbeit in ihm *vergegenständlicht* oder *materialisiert* ist.

Fowkes translates it as “A use-value, or useful article, therefore has value only because...” Some readers may think here that “having value” in this sentence means to be ethically

valuable, and others my think that “value” is a short form for “use-value.” In the German, such confusion is warded off by the colloquial use of the indefinite article “*einen Wert*.” In the

translation, I tried to preclude this same confusion by suppressing the formulation “use-value” altogether and writing “commodity value” instead of “value.”

↑ Marx is no longer speaking about exchange-value here, but about value. Value manifests itself in exchange-value, i.e., it has real effects. Therefore it must itself be real. The above formulation reminds us that value is created in a real process, the production process, by the expenditure of human labor-power. After the end of the production process, when the labor-power has been spent, this expenditure of labor-power still exists—as value. The labor is not only (qua concrete labor) objectified in the product (meaning that it no longer exists as labor), but also, qua abstract labor, accumulated in the product and still present as labor (value is *congealed* abstract labor). This congealed abstract labor is the common substance *inside* the commodities which manifests itself in the exchange relations, and to which these exchange relations *between* the commodities can be *reduced*, as illustrated by the polygon analogy. In the First edition, [megaII/5]38:1, Marx describes this reduction as follows:

Their *social* relation consists exclusively in counting for each other as only quantitatively different, but qualitatively equal (and therefore replaceable by one another and exchangeable with another) expressions of this

Ihr *gesellschaftliches* Verhältniß besteht ausschließlich darin einander als nur quantitativ verschiedene, aber qualitativ gleiche und daher durch einander ersetzbare und mit einander vertauschbare Ausdrücke die-

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social substance which they share.

ser ihrer gesellschaftlichen Substanz zu gelten.

Back to the Fourth edition. Since values only differ quantitatively, Marx's next topic is of interest: how is the magnitude of value determined?

Exam Question 125 *Is the magnitude of value of a commodity determined by the quantity of abstract labor necessary to produce it, or by the quantity of other commodities against which it can be exchanged?* 2013fa, 2012fa, 2011fa, 2001fa, 2000fa, 1998WI, 1996ut, 1996sp, 1995ut, 1995WI.

How, then, to measure the *magnitude* of this value?

Wie nun die *Größe* seines Werts messen?

The answer to this question will not be given in one shot but will be developed step by step. In the first step, Marx derives the quantity of value from the quantity of living labor producing the product:

By the *amount* of the value-constituting substance, i.e. labor, contained in the article.

Durch das *Quantum* der in ihm enthaltenen „wertbildenden Substanz“, der Arbeit.

↑ The transition from living labor to objectified labor is seamless, without quantitative gain or loss. This is not entirely obvious since in the real world, living labor has to jump through a big hurdle before it can objectify itself: for this it needs means of production! However the presence of means of production is felt in the value of the end product only through the *transfer* of the value of the means of production to the end product. In the paradigm of the labor theory of value, the means of production do not create any new value. “Labor content” means not only the *direct* labor (labor input in the last production process making this specific commodity), but the *total* labor that went into the product and into the materials of which the product consists, and also a pro-rated portion of the labor needed to produce the machinery and buildings. Marx will discuss this in detail in chapter Eight.

If we want to measure the quantity of value, we must therefore know how to measure the quantity of living labor. ↓ Marx's first answer sounds more straightforward than it is:

The quantity of labor, again, is measured by its *duration*, the *labor-time*, which finds its standard of measurement in *well-defined pieces of time* like hour, day, etc.

Die Quantität der Arbeit selbst mißt sich an ihrer *Zeitdauer*, und die *Arbeitszeit* besitzt wieder ihren Maßstab an *bestimmten Zeitteilen*, wie Stunde, Tag usw.

In the previous sentence, Marx had said: the magnitude of value is measured by the *Quantum* of the labor contained in it. Now he says: the *Quantität* of labor itself is

measured by its duration. Both *Quantum* and *Quantität* are usually translated as quantity. The difference is subtle: a *Quantum* of something is that thing, considered

from its quantitative aspect (one might translate it as “amount”), while the quantity of the thing is this quantitative aspect itself.

↑ This sounds as if time was the only or the most natural way to measure labor. This is certainly not true for useful labor. Useful labor can be measured in many different ways. Teaching labor can be measured by student credit hours, grades, teaching evaluations, even by the statistically measured impact of the class on the further progress of the student. If the useful labor leaves a measurable product, then this product is probably the best way to measure labor. However these measures cannot be used here because they measure different kinds of labor in different ways, while the issue at hand is the measurement of *abstract* labor, that aspect of labor which is *equal* to all labor processes.

Let us recapitulate why we need to measure abstract labor. A useful article can exchange itself for other articles on the market because its production required part of society's pool of abstract labor, just like the production of the other goods on the market. The pool is limited because there is a limited number of people in the work force, and each worker can only work a limited number of hours each day. The question of the magnitude of value, i.e., the question of how much of this pool of abstract labor is represented by a given commodity, is decided by how much living labor was needed to produce this commodity. If commodity A can be exchanged against commodity B, this means that commodity A and commodity B required equal portions of this overall pool for their production. Time is a good measure for abstract labor, because labor time tells us how much of the workday of one of the workers who contribute to the pool of society's abstract labor is taken up by the given product. This is labor time which could also have been used to produce a different good. In the terminology of modern economics, the measurement of abstract labor is the measurement of opportunity costs.

Question 126 *Marx does not say anything about intensiveness of labor. Shouldn't an hour of more intensive labor count as a higher quantity of abstract labor than less intensive labor?* [2013fa](#), [2012fa](#).

Question 127 *Why is labor measured here by labor-time, and not by counting how many movements were made, or by the heart rate of the laborer (as in an exercise room), or by the discomfort of the laborer?* [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [1997ut](#), [1997sp](#).

Question 128 *Wouldn't it be better to measure the quantity of labor by output rather than by labor time?* [2013fa](#), [2012fa](#).

↓ The next step is a surprise, a reminder that the above argument is incomplete. Although measuring labor by time seems an obvious and straightforward prescription (in principle all one has to do is go into the factory with a stopwatch), it leads to absurd results:

49:1 It might seem that if the value of a commodity is determined by the amount of labor spent in its production, the more lazy and inept the laborer, the more valuable his commodity would be, because more time would be required in its production.

53:3 Es könnte scheinen, daß, wenn der Wert einer Ware durch das während ihrer Produktion verausgabte Arbeitsquantum bestimmt ist, je fauler oder ungeschickter ein Mann, desto wertvoller seine Ware, weil er desto mehr Zeit zu ihrer Verfertigung braucht.

"It might seem that" is a better translation than: "some people might think that." Also *Value*,

Price, and Profit has: it might seem that. It is not a subjective matter, not a matter of the

individual stupidity of the observer, but this semblance is baked into reality itself.

↑ It is clear that slower labor does not create more value. If this were true, producers would produce commodities ever more slowly and carefully in order to get higher value and therefore higher market prices, and a skilled and swift worker would not be rewarded. We all know that this is not the case. On the contrary, the emphasis is on speed, on churning out as many products as possible with a given amount of labor.

The link between the quantity of living labor and the quantity of objectified labor is therefore not immediate. Once again we got in an impasse. The resolution follows in the next

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sentence, but it is a little terse, therefore here is an attempt to explain the situation in more detail. Let us recapitulate where we are in the overall argument. We observed that commodities, on the market, are treated as equals. Since they are not equal as physical objects, their only commonality being that they are products of labor, this equality must be the surface echo of the fact that in production, the *labors* producing these commodities count as equal. Of course, the producers can only then successfully and enduringly treat the different labors as equal if there is something actually equal in them. We found such a thing: the actual equality of all labor processes consists in all labor being the expenditure of human labor-power.

But when we tried to use this insight to determine the quantity of value, we ran into the paradox of the lazy or incompetent laborer. What did we overlook? Our mistake was that we tried to explain a social relation by a physiological fact, i.e., we committed the error of reductionism. The physiological equality of all labor is the material basis, the *condition* for the social relation of abstract labor, but it is not that social relation itself. In other words, the fact that all labors are the expenditure of human labor makes it *possible* for society to treat all labors as equal, but is by itself not yet this equal treatment. This equal treatment is a social act. Until now, human labor in the abstract had been introduced simply as the expenditure of human labor-power, without a social element. The lazy worker reminds us that abstract labor is indeed social.

↓ The resolution of the impasse is therefore the reminder that the substance of value is equal human labor. Marx had already said in 48:2 that the substance of value is made up of “equal human labor, human labor in the abstract,” but until now he had not drawn attention to the social relation hidden in the word “equal.” Now is a good opportunity to make this point, because it is obvious to the reader that the labor of the slow worker produces less value per hour than that of the fast worker.

The labor, however, which constitutes the substance of value is equal human labor, expenditure of the same human labor-power.

Die Arbeit jedoch, welche die Substanz der Werte bildet, ist gleiche menschliche Arbeit, Verausgabung derselben menschlichen Arbeitskraft.

↑ Why didn’t Marx introduce this social dimension of equality from the beginning and in this way avoid the paradox of the lazy worker? Because these social relations are *invisible*. The commodity producers themselves don’t know either how much value their commodity has. All they know is how much time their concrete labor takes. Due to this invisibility, the paradox of the lazy worker signals a real contradiction—that individual labor processes, necessarily different from each other, come together to produce the socially uniform “value quasi-material.” This will be thematized in chapter Thirteen, see 322:2/oo. This is why Marx chose to present it as a contradictory process, although his earlier presentation in *Contribution* shows how he could have avoided this contradiction. In *Contribution*, the social character of abstract labor is thematized much earlier. Already during the introduction of abstract labor, in 271:1, Marx says that value-producing labor is not only abstract but also *general*, i.e., it transcends the individuality of the producers. By contrast, *Capital* makes no mention of this general character of abstract labor, although it is implicitly present (and hidden away) in the word “equal.” (Perhaps he dropped this aspect again because it was an ad-hoc addition, an additional aspect of the issue the introduction of which was not necessary until much later?) In *Contribution* 273:1, Marx introduces socially necessary labor-time, with much less fanfare than here, not triggered by an impasse as it is here in *Capital*.

Question 131 Regarding the question how to measure the quantity of value, Marx first

gives a wrong answer, which is based on an oversight, and then corrects it. Why doesn't he give the right answer right away? [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2007SP](#), [2003fa](#).

The last sentence we just read in [49:1](#), which reminds the reader that abstract human labor is a social relation because it is “equal human labor,” is the very next sentence after Marx makes the social character of equal labor drastically clear by the paradox of the lazy worker. But, as soon as Marx introduces this social character, he immediately shows how to get away from the sticky issue of social relations again. Let us see how. In the above sentence, the transition from labor to labor-power is accompanied by a transition from “equal” to “same.” Labors are *equal* to each other because they are expenditures of one and the *same* human labor-power. Being expenditures of one and the same human labor-power explains why they are equal to each other—and now we no longer have to deal with the social relation of equality between the labors but with the glob of human labor-power from which these labors are derived. We reduced the social relation of equality to a homogeneous substance, this time not *contained* in the thing, as in the polygon metaphor [47:2](#), but a substance from which all these labors are *derived*.

↓ But if we look at this substance, this glob of human labor-power, we notice that it is composed of many individual labor-powers:

The total labor-power of society, which is represented in the values of the commodities produced by that society, counts here as one and the same human labor-power, although it is composed of innumerable individual labor-powers.

Die gesamte Arbeitskraft der Gesellschaft, die sich in den Werten der Warenwelt darstellt, gilt hier als ein und dieselbe menschliche Arbeitskraft, obgleich sie aus zahllosen individuellen Arbeitskräften besteht.

↓ The next question is therefore: how are the individual labor-powers, which have individual differences between them, combined to form this overall body constituting society's aggregate labor-power? This is an issue that arises in every society. One rational way to resolve this might perhaps be to pair the unskilled workers with skilled workers who can train them. In the free software movement, there are mailing lists in which “newbies” can get advice from experienced technicians, and other mailing lists for the experienced technicians themselves. In a market system, this combination is done on harsher and more punitive terms: each individual labor-power makes its contribution to the whole only to the extent that it conforms to the social average.

Each of these individual labor-powers is the same human labor-power as any other, to the extent that it has the character of the average labor-power of society and takes effect as such, and therefore requires, for producing a commodity, no more labor-time than is necessary on an average, no more than is *socially necessary*.

Jede dieser individuellen Arbeitskräfte ist dieselbe menschliche Arbeitskraft wie die andere, soweit sie den Charakter einer gesellschaftlichen Durchschnitts-Arbeitskraft besitzt und als solche gesellschaftliche Durchschnitts-Arbeitskraft wirkt, also in der Produktion einer Ware auch nur die im Durchschnitt notwendige oder *gesellschaftlich notwendige* Arbeitszeit braucht.

↑ It cannot be otherwise in a market economy, in which the individual labors relate to each other only as equal labor.

In this last passage, the word “average labor-power” is used twice. What is an average labor-power? In its modern definition, the word “average” denotes the arithmetic mean of all actual labor processes. Such an approach to the computation of socially necessary labor-

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time was taken in [Fla83]. Although this is acceptable for a simplified mathematical model, it should not be taken literally. Marx's concept of "average" does not specify whether the median or the arithmetic mean or some other formula is meant. Mathematical formulas know nothing about the specific circumstances. It would be magic if a formula existed that could tell what the socially normal level is in every concrete circumstance. The question which labor process is socially necessary must be decided on a case-by-case basis. The fact that Marx wrote "*necessary* on the average" and not "*needed* on the average" is consistent with this interpretation that "average" is not an empirical category.

Question 134 *Why is value determined by the labor-time needed under the socially average conditions of production, rather than by the best conditions of production attained in society?* 2013fa, 2012fa, 2011fa, 2008fa, 2007SP, 2004fa, 2002fa.

↓ In order to determine when a given production method is *socially necessary*, Marx looks at two things: the labor-power used (skill and intensity) and technology.

The labor-time socially necessary is that required to produce an article under the prevailing socially normal conditions of production and with the socially average degree of skill and intensity.

Gesellschaftlich notwendige Arbeitszeit ist Arbeitszeit, erheischt, um irgendeinen Gebrauchswert mit den vorhandenen gesellschaftlich-normalen Produktionsbedingungen und dem gesellschaftlichen Durchschnittsgrad von Geschick und Intensität der Arbeit darzustellen.

Later, in 206:2/o, Marx clarifies that the skill-level of the laborer and the intensity of the labor must be that which is normal *for the branch of production in question*.

Labor-power and technology enter the concept of socially necessary labor-time as follows:

- Regarding labor-power, different labor-powers are not exactly equal; and not every individual has the same talents and skills, or is putting forward the same effort. But it is well known what the average is because most labor-powers *are* average. The reduction of a given labor-power to this average labor-power is made by the speed of the output (i.e., a labor-power that produces twice as fast as the average also produces twice the value).
- Regarding technology, that production method is the socially normal one which is prevalent and/or up to date. It is an abstraction from individual circumstances of production as well as from production methods which deviate from the norm. This notion of "necessary" is compatible with the fact that in an economy in which innovations are constantly made, some of the productive resources are of necessity always outdated.

Exam Question 136 *The value of a commodity does not increase if it is made by a slow or inept laborer. Explain carefully why not. Whose decision is it to keep the value of the output of a slow worker below the time actually used for its production? How is it enforced?* 2013fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007SP, 2005fa, 2001fa, 1999SP, 1998WI, 1996ut, 1996sp, 1995ut, 1995WI.

↓ Socially necessary labor-time is therefore a well-defined concept, but as the word already indicates, it is not identical to the labor-time actually used. The following example illustrates this difference:

The introduction of power looms into England probably reduced by one half the labor

Nach der Einführung des Dampfwebstuhls in England z.B. genügte vielleicht halb so

required to weave a given amount of yarn into cloth. The English hand-loom weavers, as a matter of fact, continued to require the same time as before; but after the change, the product of one hour of their individual labor represented only *half* an hour's social labor, and consequently fell to one-half its former value.

viel Arbeit als vorher, um ein gegebenes Quantum Garn in Gewebe zu verwandeln. Der englische Handweber brauchte zu dieser Verwandlung in der Tat nach wie vor dieselbe Arbeitszeit, aber das Produkt seiner individuellen Arbeitsstunde stellte jetzt nur noch eine *halbe* gesellschaftliche Arbeitsstunde dar und fiel daher auf die Hälfte seines früheren Werts.

In this example, the socially necessary labor-time is not the average of the old and new production methods, but the labor-time required by the new method. Why? Because power loom weaving is not only much cheaper production but also production on a much larger scale, so that hand weavers simply cannot coexist. In the Machinery chapter, p. 433:1–435:2, Marx elaborates on this example in a way which makes the brutality of the reign of socially necessary labor-time much more explicit.

Now Marx summarizes his findings:

49:2/o That which determines the magnitude of the value of any article is therefore only the amount of *socially necessary labor*, or the *labor-time socially necessary for its production*.⁹

54:1 Es ist also nur das *Quantum gesellschaftlich notwendiger Arbeit*, oder die zur *Herstellung eines Gebrauchswerts gesellschaftlich notwendige Arbeitszeit*, welche seine Wertgröße bestimmt.⁹

The footnote cites an early source which clearly expresses this concept of socially necessary labor.

⁹ “The value of them (the necessities of life), when they are exchanged the one for another, is regulated by the quantity of labor necessarily required, and commonly taken in producing them.” [Ano39, p. 36] This remarkable anonymous work written in the eighteenth century bears no date. Its content makes it clear, however, that it appeared in the reign of George II about 1739 or 1740.

⁹ „Der Wert von Gebrauchsgegenständen, sobald sie gegeneinander ausgetauscht werden, ist bestimmt durch das Quantum der zu ihrer Produktion notwendig erheischten und gewöhnlich angewandten Arbeit.“ [Ano39, p. 36] Diese merkwürdige anonyme Schrift des vorigen Jahrhunderts trägt kein Datum. Es geht jedoch aus ihrem Inhalt hervor, daß sie unter Georg II., etwa 1739 oder 1740, erschienen ist.

Exam Question 137 Carefully explain how the “socially necessary labor-time” for the production of an article is determined. Is it the same as the time needed in the average to produce this article? 2013fa, 2011fa, 2008fa, 2007SP, 2005fa, 2004fa, 2003fa, 2001fa, 1999SP, 1997ut, 1996ut.

Question 138 Should Marx also have introduced the concept of socially necessary use-value because the market streamlines commodities by leaving off features which do not add enough usefulness for the added cost?

Question 139 Did Marx introduce additional assumptions in order to resolve the paradox of the lazy worker, or does his solution follow from assumptions made or results derived in section 1.1.d? 2013fa, 2008fa, 2005fa, 1999SP, 1997ut.

Question 140 Marx argues in chapter One that the quantity of value is determined by socially necessary labor-time. Does this mean the exchange-proportions between commodities must be proportional to the socially necessary labor-time necessary to produce these commodities? 2008fa, 2007SP.

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At the level of chapter One, which discusses commodity production in general, not yet capitalism, socially necessary labor is the *measuring stick* of the extent to which individual labor creates value. Under capitalism this measuring stick becomes a real *limit*:

The capitalist sees to it that he (the worker) ... only uses as much labor-time as is necessary in the average for the production of the product. (*Results* , related also).

A worker who is slower than the others will not find a job in capitalism.

After his discussion of socially necessary labor-time, Marx gives an alternative, quite different argument why the labor-time necessary under normal circumstances, instead of the actual labor used, determines the magnitude of the value of a product.

The individual commodity counts here generally as an average sample of its kind.¹⁰ | Die einzelne Ware gilt hier überhaupt als Durchschnittsexemplar ihrer Art.¹⁰

↑ Marx writes “here generally” (*hier überhaupt*), because commodities count as average samples of their kind not only with respect to labor-time, but also with respect to their use-values, etc. See 116:1/o and 219:3/o. ↓ One can also find this in the literature:

¹⁰ “All products of the same kind in fact form only one mass, the price of which is determined generally and without regard of the particular circumstances.” Le Trosne, [LT46, p. 893]

¹⁰ „Alle Erzeugnisse der gleichen Art bilden eigentlich nur eine Masse, deren Preis allgemein und ohne Rücksicht auf die besonderen Umstände bestimmt wird.“ Le Trosne, [LT46, p. 893]

This alternative argument is very brief, but easily elaborated. Even if the socially necessary labor-time is not actually contained in a particular article for sale, it usually is contained in the majority of other articles which have the same use-value. And as long as the use-values are identical, the buyers will not pay a higher price for one than for the other. An exceptionally slow worker must therefore compete with identical articles made by average laborers, therefore he cannot fetch a better price than they.

Isn't this a much clearer and more convincing argument than the earlier abstract reasoning about socially necessary labor-time? Why didn't Marx make this the centerpiece of his discussion? Answer: because this alternative argument stays entirely on the surface of the economy, in the competition between the different goods brought to the market. Marx says again and again that knowledge of these competitive mechanisms is not necessary, that the basic character of capitalism can be derived without looking at competition. The derivation of socially necessary labor earlier in this subsection can therefore be viewed as the derivation of a result which is familiar to all of us because it is the competitive outcome from the basic organization of production in capitalism, but the derivation proceeds without resorting to competition. Marx says more explicitly, as a side remark in chapter Fourteen, , that the extraneous competitive interactions force the producers to adhere to the law of socially necessary labor-time (a basic law of capitalism which does not derive from competition):

In the production of commodities generally, the labor-time expended on a commodity must not exceed that which is socially necessary for its production. This takes the form of an external compulsion by competition, since, in the surface interactions, each individual producer is obliged to sell his commodity at its market-price.

Daß auf eine Ware nur die zu ihrer Herstellung gesellschaftlich notwendige Arbeitszeit verwandt wird, erscheint bei der Warenproduktion überhaupt als äußerer Zwang der Konkurrenz, weil, oberflächlich ausgedrückt, jeder einzelne Produzent die Ware zu ihrem Marktpreis verkaufen muß.

Marx stresses on various places throughout his economic writings, for instance in 321:2, that competition, i.e., the interaction of the economic agents on the surface, *enforces* the laws of “capital in general,” but these laws cannot be *derived* from competition. Rather they must be derived from an analysis of the economic core structure itself, from what Marx calls the “immanent laws of capitalist production” or the “inner nature of capital.”

Question 141 What does Marx mean with the statement that “the individual commodity must here generally be considered as an average sample of its kind”? Give examples. Also try to give a reasoning why Marx’s statement might be true. 2013fa, 2008fa, 1995WI.

Question 142 The magnitude of value is not determined by the labor-time actually in the product, but by the labor-time socially necessary to produce the product, because on the market, a product made under exceptional circumstances is indistinguishable from a product made under normal circumstances.

Is this Marx’s argument? If you think it is, don’t answer this question but go back and re-read the text. If you agree that it is not, this question is for you: Why did Marx not make the above simple argument? 2012fa, 2008fa, 2007SP.

Next, Marx summarizes the results of his derivation:

Commodities, therefore, in which equal amounts of labor are embodied, or which can be produced *with the same labor-time*, have *the same magnitude of value*. The value of one commodity is to the value of any other, as the labor-time necessary for the production of the one is to that necessary for the production of the other. “As values, all commodities are only greater or smaller amounts of *congealed labor-time*.”¹¹

¹¹ K. Marx, l.c., p. 6

Waren, worin gleich große Arbeitsquanta enthalten sind oder die in *derselben Arbeitszeit* hergestellt werden können, haben daher *dieselbe Wertgröße*. Der Wert einer Ware verhält sich zum Wert jeder andren Ware wie die zur Produktion der einen notwendige Arbeitszeit zu der für die Produktion der andren notwendigen Arbeitszeit. „Als Werte sind alle Waren nur bestimmte Maße *festge-ronnener Arbeitszeit*.“¹¹

¹¹ K. Marx, l.c., p. 6

This last sentence is a literal quote from *Contribution* 271:2/o, with the only difference that *Contribution* wrote “exchange-value” instead of “values.”

After this determination of the magnitude of value, Marx discusses now circumstances under which this magnitude changes:

50:1 The value of a commodity remains constant as long as the labor-time required for its production also remains constant. But the latter changes with every variation in the *productive power of labor*. The productive power of labor is determined by many different circumstances, such as the workers’ average degree of skill, the level of development of science and of its technological applicability, the social organization of the production process, the extent and effectiveness of the means of production, the conditions found in the natural environment, and others.

54:2/o Die *Wertgröße* einer Ware bliebe daher konstant, wäre die zu ihrer Produktion erheischte Arbeitszeit konstant. Letztere wechselt aber mit jedem Wechsel in der *Produktivkraft der Arbeit*. Die Produktivkraft der Arbeit ist durch mannigfache Umstände bestimmt, unter anderen durch den Durchschnittsgrad des Geschickes der Arbeiter, die Entwicklungsstufe der Wissenschaft und ihrer technologischen Anwendbarkeit, die gesellschaftliche Kombination des Produktionsprozesses, den Umfang und die Wirkungsfähigkeit der Produktionsmittel, und durch *Naturverhältnisse*.

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With so many factors affecting the value of a commodity, one should not expect it to be constant for long. Agriculture is a notorious example:

For example, the same quantity of labor is present in eight bushels of wheat in favorable seasons and in only four bushels in unfavorable seasons.

Dasselbe Quantum Arbeit stellt sich z.B. mit günstiger Jahreszeit in 8 Bushel Weizen dar, mit ungünstiger in nur 4.

In a second example, Marx discusses the value of raw materials:

The same quantity of labor provides more metal in rich mines than in poor. Diamonds are of very rare occurrence on the earth's surface, and hence their discovery requires *on an average* a great deal of labor-time. Consequently they represent much labor in a small volume.

Dasselbe Quantum Arbeit liefert mehr Metalle in reichhaltigen als in armen Minen usw. Diamanten kommen selten in der Erdrinde vor, und ihre Findung kostet daher *im Durchschnitt* viel Arbeitszeit. Folglich stellen sie in wenig Volumen viel Arbeit dar.

Question 145 *How is the value of raw materials determined in Marx's theory? How does the scarcity of these materials influence their value? Is Marx's argument still valid in the case of an exhaustible resource, which is present only in finite supply?* [2012fa](#), [2010fa](#), [2008fa](#), [2008SP](#), [2007SP](#), [2005fa](#), [2003fa](#), [2002fa](#), [1997ut](#), [1997sp](#), [1997WI](#), [1996sp](#), [1995ut](#), [1995WI](#).

According to a naive neoclassical approach, natural scarcity affects the price in the following way: supply is limited, and therefore a high price is necessary to keep demand in line with supply. Marx postulates a different mechanism: due to the natural scarcity of the materials, a lot of labor is needed to extract the materials, and the high price is a reflection of this quantity of labor.

Next Marx gives empirical evidence which seems to contradict his own thesis: namely, that market prices of scarce materials are *below* their labor content. The “Jacob” he refers to here is [[Jac31](#), Vol. 2, p. 101].

Jacob questions whether gold has ever been paid for at its full value. This applies still more to diamonds. According to *Eschwege*, the total product of the Brazilian diamond mines for the eighty years ending in 1823 still did not amount to the price of 1 1/2 years' average product of the sugar and coffee plantations of the same country, although the diamonds represented much more labor, therefore more value.

Jacob bezweifelt, daß Gold jemals seinen vollen Wert bezahlt hat. Noch mehr gilt dies vom Diamant. Nach *Eschwege* hatte 1823 die achtzigjährige Gesamtausbeute der brasilischen Diamantgruben noch nicht den Preis des 1 1/2jährigen Durchschnittsprodukts der brasilischen Zucker- oder Kaffeeplantagen erreicht, obgleich sie viel mehr Arbeit darstellte, also mehr Wert.

Marx does not explain why there is a discrepancy between labor content and market price. Like all laws, the law that the magnitude of value is set by the quantity of labor is only a tendential law, whose effect may be modified or blocked by other effects. This itself is nothing remarkable. But it is relevant that in this case prices are *below* instead of above labor content. If scarcity were to affect prices directly, i.e., through deficient supply, rather than through labor content, then one should expect prices of scarce materials to be above their values. In his “Notes to Wagner” [[mecw24](#)536:8/o], Marx discusses situations in which a commodity is scarce, in which case, he says, their prices are above values. Since in the present situation prices are below their values determined by their labor content, scarcity cannot have been the reason for these prices.

Question 146 *After claiming that the value of scarce goods is determined by labor-time, Marx brings the example where one scarce good, gold, historically never has traded at prices proportional to the labor-time embodied in it. What is Marx trying to prove with this counterexample to his own theory?* 2013fa, 2011fa, 2009fa, 2008fa, 2007SP, 1996ut, 1996sp.

At the end, Marx returns from the discussion of raw materials to the discussion of technical change in general. Diamonds lend themselves well to this transition, since industrial production of diamonds is thinkable.

With richer mines, the same quantity of labor would represent itself in more diamonds, and their value would fall. If man succeeded, without much labor, in transforming carbon into diamonds, their value might fall below that of bricks.

Mit reichhaltigeren Gruben würde dasselbe Arbeitsquantum sich in mehr Diamanten darstellen und ihr Wert sinken. Gelingt es, mit wenig Arbeit Kohle in Diamant zu verwandeln, so kann sein Wert unter den von Ziegelsteinen fallen.

Technological progress induces a discrepancy, even a contradiction between value and real wealth:

In general, the greater the productive power of labor, the less the labor-time required to produce an article, the lower the mass of labor crystallized in that article, and the lower its value. Inversely, the lower the productive power of labour, the greater the labor-time necessary to produce an article, and the greater its value. The value of a commodity, therefore, varies directly as the quantity, and inversely as the productive power, of the labor which comes to fruition in the commodity.

Allgemein: Je größer die Produktivkraft der Arbeit, desto kleiner die zur Herstellung eines Artikels erheischte Arbeitszeit, desto kleiner die in ihm kristallisierte Arbeitsmasse, desto kleiner sein Wert. Umgekehrt, je kleiner die Produktivkraft der Arbeit, desto größer die zur Herstellung eines Artikels notwendige Arbeitszeit, desto größer sein Wert. Die Wertgröße einer Ware wechselt also direkt wie das Quantum und umgekehrt wie die Produktivkraft der sich in ihr verwirklichenden Arbeit.

With changes of productive powers of labor, the relationship between the use-value and the value of a commodity changes. It is therefore fitting that this section concludes with some more general remarks about the relationship between use-value and exchange-value.

50:2/o A thing can be a use-value without being a value. This is the case whenever labor is not necessary to mediate its utility to man. Air, virgin soil, natural meadows, unplanted forests, etc. A thing can be useful, and a product of human labor, without being a commodity. He who satisfies his own need with the product of his own labor creates use-values, but not commodities. In order to produce the latter, he must not only produce use-values, but use-values for others, social use-values. {And not merely for others. The medieval peasant produced a grain-rent for the feudal lord and a grain-tithe for the priest; but neither the grain-

55:1 Ein Ding kann Gebrauchswert sein, ohne Wert zu sein. Es ist dies der Fall, wenn sein Nutzen für den Menschen nicht durch Arbeit vermittelt ist. So Luft, jungfräulicher Boden, natürliche Wiesen, wildwachsendes Holz usw. Ein Ding kann nützlich und Produkt menschlicher Arbeit sein, ohne Ware zu sein. Wer durch sein Produkt sein eigenes Bedürfnis befriedigt, schafft zwar Gebrauchswert, aber nicht Ware. Um Ware zu produzieren, muß er nicht nur Gebrauchswert produzieren, sondern Gebrauchswert für andre, gesellschaftlichen Gebrauchswert. {Und nicht nur für andre schlechthin. Der mittelalterliche Bauer produzierte das

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rent nor the grain-tithe became commodities simply by being produced for others. In order to become a commodity, the product must be transferred to the other person, for whom it serves as a use-value, through the medium of exchange.}^{11a} Finally, nothing can be a value without being an object of utility. If the thing is useless, so is the labor contained in it; the labor does not count as labor, and therefore does not create value.

Zinskorn für den Feudalherren, das Zehntkorn für den Pfaffen. Aber weder Zinskorn noch Zehntkorn wurden dadurch Ware, daß sie für andre produziert waren. Um Ware zu werden, muß das Produkt dem andern, dem es als Gebrauchswert dient, durch den Austausch übertragen werden.}^{11a} Endlich kann kein Ding Wert sein, ohne Gebrauchsgegenstand zu sein. Ist es nutzlos, so ist auch die in ihm enthaltene Arbeit nutzlos, zählt nicht als Arbeit und bildet daher keinen Wert.

Part of this passage was written by Engels:

^{11a} [Note by Engels to the fourth German edition:] I have inserted the passage between braces because, through its omission, the misconception has very frequently arisen that Marx regarded every product consumed by someone other than the producer a commodity.

^{11a} Note zur 4. Aufl.—Ich schiebe das Eingeklammerte ein, weil durch dessen Weglassung sehr häufig das Mißverständnis entstanden, jedes Produkt, das von einem andern als dem Produzenten konsumiert wird, gelte bei Marx als Ware.—F.E.

This remark about the relationship between use-value and exchange-value concludes section 1.1. Here is a related passage from *Capital III*, 647:1:

Use-value is the carrier of exchange-value, but not its cause. If the same use-value could be obtained without labor, it would have no exchange-value, yet it would retain, as before, the same natural usefulness as use-value. On the other hand, a thing cannot have exchange-value without having use-value, i.e., without being such a natural carrier of labor.

So ist der Gebrauchswert überhaupt Träger des Tauscherts, aber nicht seine Ursache. Derselbe Gebrauchswert, könnte er ohne Arbeit verschafft werden, hätte keinen Tauschwert, behielte aber nach wie vor seine natürliche Nützlichkeit als Gebrauchswert. Andererseits aber hat ein Ding keinen Tauschwert ohne Gebrauchswert, also ohne solchen natürlichen Träger der Arbeit.

The second sentence in this excerpt argues that the use-value is not the cause of exchange-value, since there are use-values which are not exchange-values, and the third sentence argues that it is the carrier, because there are no exchange-values without a use-value.

In the first edition, 21:2, the following paragraph follows now, which introduces the subject of section 1.2:

We know now the *substance* of value. It is *labor*. We know the *measure of its magnitude*: it is *labor-time*. Its *form*, which is what makes the *value* an *exchange-value* remains to be analyzed. But first, the determinations which we have already found must be developed a little more closely.

Wir kennen jetzt die *Substanz* des Werths. Es ist die *Arbeit*. Wir kennen sein *Größenmaß*. Es ist die *Arbeitszeit*. Seine *Form*, die den *Werth* eben zum *Tausch-Werth* stemmelt, bleibt zu analysiren. Vorher sind jedoch die bereits gefundenen Bestimmungen etwas näher zu entwickeln.

1.2. Double Character of the Labor Represented in Commodities

After an introductory paragraph, Marx first discusses labor producing use-value and then labor producing value. He looks at the latter both from qualitative and quantitative angles.

51:1 Originally, the *commodity* appeared to us as something *two-edged*, use-value and exchange-value.

56:1 Ursprünglich erschien uns die *Ware* als ein *Zwieschlächtiges*, Gebrauchswert und Tauschwert.

The original use of *zwieschlächtig* is *zwieschlächtiges Schwert* (two-edged sword), hence the translation “two-edged.” Here is the Moore Aveling translation: “At first sight a commodity presented itself to us as a complex of two things—use-value and

exchange-value.” It should not be called “a complex,” since the connection between the two does not strike the eye “at first sight”; at first sight, there is more likely to be a confusing muddle between the two. Use-value and exchange-value can also not be called “things,” “moments” or

“edges” is more adequate. The words “moments” (as in angular moments) or “edges” (as in the two edges of a sword) imply that one cannot exist without the other (value cannot exist without use-value), while “things” has the connotation that both can exist separately.

↑ This two-edged character of the commodity is easy to see. Everybody handling commodities on the surface of the economy has to grapple with it. ↓ But the following observation is not immediately obvious from surface experience:

Later on, it turned out that also the labor, so far as it finds expression in value, no longer possesses the same characteristics which belong to it as creator of use-values.

Später zeigte sich, daß auch die Arbeit, soweit sie im Wert ausgedrückt ist, nicht mehr dieselben Merkmale besitzt, die ihr als Erzeugerin von Gebrauchswerten zukommen.

Question 148 *If the product is different, then the labor producing this product must be different as well. Isn't this obvious? Why does Marx act as if this was a scientific insight?* 2008fa, 2007fa.

↑ Marx has switched from “exchange-value” in the first sentence of the paragraph to “value” here. Marx is referring to the analysis in 48:2 starting with the words “the product of labor has already undergone a change in our hands.” Most of that earlier analysis had focused on the common substance which the *products* of labor have as values, but starting in the middle of 48:2 until the end of that same paragraph Marx had also said something about the *labor* producing these commodities. The present section looks at this labor in more detail.

One of the emphases of the earlier analysis was that the social value quasi-material inside the products is *real* despite being a quasi-material, i.e., an absence. These Annotations tried to drive the point home by saying it is as real as a brick wall. The brick wall can also serve as an analogy for the present section, because Marx argues here that, just like a brick wall, the value quasi-material *has to be produced* by a real process. The production process is in fact the only place where this quasi-material is a presence, not an absence. The labor process in a commodity society must therefore accomplish two things at the same time. On the one hand, it produces the use-value of the commodity, and on the other it also produces this value quasi-material. The present section shows that these two goals are not in harmony with each other, because they depend on different aspects of the labor process. The French version of the above sentence, p. [megaII/6]25:1, says more explicitly than the German that this is a disharmony:

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Later on, we saw that all the characteristics which distinguish the labor producing use-values disappear as soon as the labor expresses itself in value.

The fact that the labor process has two conflicting goals is an important characteristic of capitalism:

I was the first to critically prove¹² this twofold nature of the labor contained in commodities.

¹² l.c., pp. 12, 13, and passim

↑ The reference in the footnote is *Contribution*, p. 276:1–277.

Ensuite nous avons vu que tous les caractères qui distinguent le travail productif de valeurs d'usage disparaissent dès qu'il s'exprime dans la valeur proprement dite.

Diese zwieschlächtige Natur der in der Ware enthaltenen Arbeit ist zuerst von mir kritisch nachgewiesen worden.¹²

¹² l.c. p. 12, 13 und passim

Question 150 How did Marx “critically prove” (131:2/o) that labor under capitalism has a two-edged character? 2013fa, 2009fa.

Marx considers this as one of the most important points in *Capital*. In a letter to Engels dated August 24, 1867 he writes:

The best in this book is, 1., (and this is what *all* understanding of the FACTS is based upon) the *double character of labor*, according to whether it expresses itself in use-value or exchange-value, which I emphasize already in the *first* chapter.

Das Beste an meinem Buch ist 1. (darauf beruht *alles* Verständnis der facts) der gleich im *Ersten* Kapitel hervorgehobne *Doppelcharakter der Arbeit*, je nachdem sie sich in Gebrauchswert oder Tauschwert ausdrückt; ...

The double character of labor will play a prominent role later, for instance in chapter 7. But it can be defined already now, before the introduction of money or capital. In the next sentence now in *Capital*, Marx emphasises the importance of this concept with the following words:

Since this point is pivotal for an understanding of political economy, it will be explained here in more detail.

Da dieser Punkt der Springpunkt ist, um den sich das Verständnis der politischen Ökonomie dreht, soll er hier näher beleuchtet werden.

Why is this such a pivotal insight? Although the value of the commodities is an absence—it is only a *quasi*-material and not a material—it is not correct to call it a social fiction. It has a physical basis because the process which creates this value quasi-material is a physical process. Value is a social relation which has a material basis. With the two-fold character of labor Marx addresses the material basis of value.

1.2.a. [A Closer Look at Useful Labor]

51:2 Let us take two commodities such as a coat and 10 yards of linen. Assume the former has double the value of the latter, so that, if 10 yards of linen = W , the coat = $2W$.

56:2 Nehmen wir zwei Waren, etwa einen Rock und 10 Ellen Leinwand. Der erste habe den zweifachen Wert des letzteren, so daß, wenn 10 Ellen Leinwand = W , der Rock = $2W$.

Marx begins with two arbitrary commodities with different use-values. In the right proportions they can be exchanged against each other. But for the discussion that follows it is not necessary that they have equal values; in the example the coat has twice the value of

1.2. Double Character of Labor

the linen. For the discussion of use-values it would not even be necessary to look at two commodities, one would be enough. And indeed, Marx focuses here on the coat:

51:3 The coat is a use-value that satisfies a particular want.

(Of course, linen is a use-value too.)

To bring it into existence, a *specific sort of productive activity* is necessary, specified by its purpose, mode of operation, object, means, and result.

56:3 Der Rock ist ein Gebrauchswert, der ein besonderes Bedürfnis befriedigt.

Um ihn hervorzubringen, bedarf es einer *bestimmten Art produktiver Tätigkeit*. Sie ist bestimmt durch ihren Zweck, Operationsweise, Gegenstand, Mittel und Resultat.

The word that is translated with “bring into existence” is in German “*Hervorbringen*” (bring forward). “Bring forward” is the

etymological meaning of “produce”: pro is forward, and ducere is to lead. This choice of words signals a transformational

view of production: production is not the creation of something new, but it only “brings forward” what is already there.

↑ Coats do not grow on trees. They cannot exist without “productive activity.” The word “productive activity” refers to the purposeful and conscious activity which only humans can perform, see 187:2/o. In chapter Seven, Marx will discuss this activity in more detail. At the present point, the double character of labor is discussed as a necessary implication of the commodity relation. In chapter Seven, it will be discussed as the deliberate procedure how to exploit the laborer. Presently Marx is making a comparison: he highlights those aspects of labor which are different if the activity is seen as the production of use-values than if seen as the production of value. The first point picked out by Marx is that for the production of use-value, each such productive activity must be very specific. It must satisfy many conditions without which the desired use-value simply will not materialize. What is translated here with “specification” is in German the Hegelian “determination.” Marx brings five such determinations or specifications defining the labor process producing coats. The first is its purpose: “What do I want to get done?” The next question is: “What kind of activity is necessary to achieve this?” Hence, “What to work on, and what to work with?” And finally, “Are my efforts yielding the desired result?” If not, the labor process must be modified until it does. In 199:1 Marx reiterates that these are the aspects of human productive activity.

Question 154 Can you think of determinants of the labor process which do not belong to it as useful labor? 2012fa, 2008fa, 2007SP.

↓ The rest of the paragraph defines the terminology. (a) Whenever we refer to labor under the aspect of the usefulness of its product, we call it “useful labor.”

The labor whose usefulness represents itself in the use-value of its product, or in the fact that its product is a use-value, will simply be called *useful labor*.

Die Arbeit, deren Nützlichkeit sich so im Gebrauchswert ihres Produkts oder darin darstellt, daß ihr Produkt ein Gebrauchswert ist, nennen wir kurzweg *nützliche Arbeit*.

The phrase “labor whose usefulness represents itself in the use-value of its product” can be understood in two different ways:

- labor is useful if it produces a product that has any use-value of whatever kind,
- labor is useful to the extent that its product is useful in the sense of being beneficial for its consumer and/or for society.

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In order to remove this ambiguity, Marx adds the clause “or in the fact that its product is a use-value.” This means, the first meaning applies here. The term “useful labor” does not involve a judgment about how beneficial the product is. Even if the use-value of the end product causes damages, the labor producing it is called “useful labor” as long as it manages to produce this end product. E.g., the labor producing nuclear weapons falls under the category of “useful labor” as defined here, regardless of what one may think of nuclear weapons.

Question 155 *If the product is useless, can the labor producing it still be considered useful labor?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa.

↓ (b) Conversely, if we use the term “useful labor” we refer to its effect on the use-value of the product (and not to any other effects it may have on the worker etc).

Whenever we call it such, we will consider it with respect to its *useful effect*.

Unter diesem Gesichtspunkt wird sie stets betrachtet mit Bezug auf ihren *Nutzeffekt*.

↓ Marx started with two commodities, coat and linen. Each has a very specific kind of labor in it. I.e., the labors needed to produce the different use-values are very *different* from each other.

52:1 Just as the use-values of coat and linen are *qualitatively different*, so also are the activities that mediate the useful properties of coat and linen, *tailoring and weaving*.

56:4 Wie Rock und Leinwand *qualitativ verschiedene Gebrauchswerte*, so sind die ihr Dasein vermittelnden Arbeiten *qualitativ verschieden*—*Schneiderei und Weberei*.

↑ Labor is called here the mediator, not the creator of the use-value, because the potential for use-values is contained in the physical qualities of the things. Labor merely teases out this potential.

A more literal translation of the sentence we just read would be:

Just as the coat and the linen are two *qualitatively different use-values*, so also

are the activities that mediate their determinate being, *tailoring and weaving*.

The term “determinate being” is a translation of the German

“*Dasein*”—an often-used colloquial term which was given a philosophical meaning by Hegel. The determinate being of something is a form of existence in which certain inner traits of that thing (here: those relevant for human life) are brought forward.

↓ The qualitative difference between the labors is even *necessary* because we began with two commodities which are (in the right proportions) *exchangeable* against each other.

Were these two objects not qualitatively different use-values and therefore the products of useful labors of different quality, they could not face each other as *commodities*. Coats are not exchanged for coats. The same use-value is not exchanged for the same use-value.

Wären jene Dinge nicht qualitativ verschiedene Gebrauchswerte und daher Produkte qualitativ verschiedener nützlicher Arbeiten, könnten sie sich überhaupt nicht als *Waren* gegenüberreten. Rock tauscht sich nicht aus gegen Rock, derselbe Gebrauchswert nicht gegen denselben Gebrauchswert.

↓ Generalizing this from our two example commodities to all commodities, one sees that commodity production has a big system of division of labor in the background:

52:2 In the totality of all different use-values or bodies of commodities appears a totality of equally diverse useful labors, differing in order, genus, species and variety—

56:5/o In der Gesamtheit der verschiedenartigen Gebrauchswerte oder Warenkörper erscheint eine Gesamtheit ebenso mannigfaltiger, nach Gattung, Art, Familie,

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a social division of labor.

Unterart, Varietät verschiedener nützlicher Arbeiten—eine gesellschaftliche Teilung der Arbeit.

Since commodities can only be exchanged if their use-values are different, Marx concludes that a social division of labor must be present whenever the products are generally produced as commodities. Although a social division of labor is one of the *prerequisites* of commodity production, it enters this derivation here *after* commodity production. Marx begins with the premise that commodity producing societies exist and function, and asks what else we know about a society if we know that it produces commodities. ↓ This does not mean that the division of labor developed *in order to* make commodity production possible. Marx addresses this in his next point. Not every society with division of labor produces commodities.

This division of labor is a necessary condition for the production of commodities, though it does not follow, conversely, that the production of commodities is a necessary condition for the division of labor. In the primitive community in India there is social division of labor without the *products* becoming *commodities*. Or, to take a less remote example, in every factory the labor is systematically divided, but this division is not mediated by the operatives exchanging their *individual products*.

Sie ist Existenzbedingung der Warenproduktion, obgleich Warenproduktion nicht umgekehrt die Existenzbedingung gesellschaftlicher Arbeitsteilung. In der altindischen Gemeinde ist die Arbeit gesellschaftlich geteilt, ohne daß die *Produkte* zu *Waren* werden. Oder, ein näher liegendes Beispiel, in jeder Fabrik ist die Arbeit systematisch geteilt, aber diese Teilung nicht dadurch vermittelt, daß die Arbeiter *ihre individuellen Produkte* austauschen.

↓ An additional element, in addition to division of labor, is necessary for commodity production.

Only the products of *mutually independent self-directed private labors* face each other as *commodities*.

Nur Produkte selbständiger und *von einander unabhängiger Privatarbeiten* treten einander als *Waren* gegenüber.

Question 156 How does the division of labor in commodity-producing societies differ from that in other societies? (Some material for answering this Question is in Grundrisse, 102:2–105:0). 2008fa, 2007SP, 2000fa.

52:3 We have therefore seen:

57:1 Man hat also gesehen:

This paragraph recapitulates what has been said about useful labor in this section.

The use-value of every commodity incorporates useful labor, i.e., a specific purposeful productive activity.

In dem Gebrauchswert jeder Ware steckt eine bestimmte zweckmäßig produktive Tätigkeit oder nützliche Arbeit.

↑ This summarizes 51:3.

Use-values cannot confront each other as *commodities*, unless they are produced by qualitatively different useful labors.

Gebrauchswerte können sich nicht als *Waren* gegenüber treten, wenn nicht qualitativ verschiedene nützliche Arbeiten in ihnen stecken.

↑ This is a summary of 52:1.

In a society in which products *generally* take the form of *commodities*, i.e., in a society of commodity producers, this qualitative dif-

In einer Gesellschaft, in der die Produkte *allgemein* die Form der *Ware* annehmen, d.h. in einer Gesellschaft von Warenpro-

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ference between the useful labors that are carried on independently from each other as the private businesses of self-directed producers, develops into a system with many components, a social division of labor.

duzenten, entwickelt sich dieser qualitative Unterschied der nützlichen Arbeiten, welche unabhängig voneinander als Privatgeschäfte selbständiger Produzenten betrieben werden, zu einem vielgliedrigen System, zu einer gesellschaftlichen Teilung der Arbeit.

↑ This final passage of the paragraph repeats 52:2: division of labor is a precondition of commodity production. Marx adds that this precondition is reproduced and extended by commodity production itself. This is the only new observation in this paragraph, but it is an important recurring theme. By reproducing its prerequisites, commodity production makes itself independent of these prerequisites—without this it would not be able to gain a life of its own. In 162:2/o and 565:3, Marx shows that also in other respects, the capitalist system reproduces its prerequisites.

Exam Question 159 (a) *Why is it necessary for the exchange of commodities that they contain qualitatively different kinds of useful labor?*

(b) *Can commodity production exist without division of labor?*

(c) *Can division of labor exist without commodity production?*

(d) *How does commodity production influence the division of labor?* 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007fa, 2004fa, 2003fa, 1997ut, 1997sp, 1996ut, 1995ut, 1995WI.

Before turning to exchange-value, Marx makes two side remarks, each in a separate paragraph, addressing possible misunderstandings of the above.

(1) Since use-values must be produced in all societies, one might think that everything said so far is valid in all societies. This is true with one important caveat: although useful labor is a transhistorical necessity, and although the labor processes producing different use-values can be very different from each other and require specific skills, it does not follow that specific individuals must be tied to specific labor processes on a full-time basis:

52:4/o Anyhow, it makes no difference to the coat whether it is worn by the tailor or by the tailor's customer. In either case it serves as a use-value.

57:2 Dem Rock ist es übrigens gleichgültig, ob er vom Schneider oder vom Kunden des Schneiders getragen wird. In beiden Fällen wirkt er als Gebrauchswert.

↑ The use-value of the coat is the same whether or not the person who consumes the coat has also produced it. (By contrast, a coat produced for self-consumption does not count as value).

Question 160 Marx says in 133:1 that the use-value of the coat is the same when it is worn by the tailor as when it is worn by someone else. Is this correct for every use-value? If you write a computer program for yourself then you often obey different principles than if you write it for others to use. A program which “works for me” is often poorly documented and does not consider all the possible situations which different users of the program might find themselves in. 2013fa, 2010fa, 2009fa, 2008SP.

↓ Not only is it irrelevant, from the point of view of use-value, whether the coat is consumed by the person who made it or by someone else, but the principles governing the production of this use-value are also not affected by it whether tailoring has become a separate profession:

Nor is the relation between the coat and the labor producing it altered in and for itself by the circumstance that tailoring becomes a particular trade, a separate branch of the social division of labor.

Ebensowenig ist das Verhältnis zwischen dem Rock und der ihn produzierenden Arbeit an und für sich dadurch verändert, daß die Schneiderei besondere Profession wird, selbständiges Glied der gesellschaftlichen Teilung der Arbeit.

↑ Someone who is not a tailor has to do exactly the same thing to produce a coat as someone who is a tailor. ↓ Coats can be produced without anyone being a tailor:

Forced by the want for clothing, humans tailored for thousands of years before anyone became a tailor.

Wo ihn das Kleidungsbedürfnis zwang, hat der Mensch jahrtausendlang geschneidert, bevor aus einem Menschen ein Schneider ward.

↑ Marx is well aware that every production process is by necessity co-operative and therefore social. In his *Introduction to Grundrisse*, [mecw28]18:1, he writes that solitary production is as unthinkable as solitary language. But Marx's point is here that it is not necessary to have the same person tied to one production process for their whole lives. As he famously remarked, people can be tailors in the morning and philosophers in the afternoon. *Contribution* 278:1 seems relevant for the preceding passage, although it addresses a slightly different issue.

Question 162 *Would a society in which people tailor in the morning and philosophize in the afternoon not be filled with dilettante tailors and philosophers neither of whom has time to get to the bottom of their profession?* 2013fa, 2012fa, 2010fa, 2008fa.

↓ Although the division of humankind into specialized professions is not a transhistorical necessity, useful labor itself is:

But at all times, a special purposeful productive activity, assimilating particular nature-given materials to particular human wants, has been necessary to mediate the useful properties of coat, linen, and all other elements of *material wealth* not spontaneously provided by Nature.

Aber das Dasein von Rock, Leinwand, jedem nicht von Natur vorhandenen Element des *stofflichen Reichtums*, mußte immer vermittelt sein durch eine spezielle, zweckmäßige produktive Tätigkeit, die besondere Naturstoffe besonderen menschlichen Bedürfnissen assimiliert.

↑ This sounds as if a solitary human being would be able to produce. Marx neglects to say here that production requires skills and the produced means of production, which make every production process a truly social matter. This omission does not affect the point Marx is trying to make here, namely: ↓ Since produced use-values are necessary for human life, so is useful labor.

So far as labor forms use-values, i.e., as *useful labor*, it is therefore a necessary condition, independent of all forms of society, for the existence of the human race; it is an eternal nature-imposed necessity, in order to mediate the metabolism between man and nature, and thus human life.

Als Bildnerin von Gebrauchswerten, als *nützliche Arbeit*, ist die Arbeit daher eine von allen Gesellschaftsformen unabhängige Existenzbedingung des Menschen, ewige Naturnotwendigkeit, um den Stoffwechsel zwischen Mensch und Natur, also das menschliche Leben zu vermitteln.

(2) In his second side remark, Marx reminds us that human labor cannot produce use-values without the contribution of nature.

53:1 Any of the use-values coat, linen, etc., in short any body of a commodity, is

57:3/o Die Gebrauchswerte Rock, Leinwand, usw., kurz die Warenkörper, sind Ver-

1. The Commodity

a combination of two elements—matter and labor. If we take away the useful labor expended upon them, a material substratum is always left, which is furnished by nature without the help of man. In his production man can proceed only in the same way as nature itself does, i.e., by *changing the forms of matter*.¹³

bindungen von zwei Elementen, Naturstoff und Arbeit. Zieht man die Gesamtsumme aller verschiedenen nützlichen Arbeiten ab, die in Rock, Leinwand usw. stecken, so bleibt stets ein materielles Substrat zurück, das ohne Zutun des Menschen von Natur vorhanden ist. Der Mensch kann in seiner Produktion nur verfahren, wie die Natur selbst, d.h. nur die *Formen der Stoffe ändern*.¹³

The *transformational* view of production implied here is emphasized in the footnote.

¹³ “All phenomena of the universe, whether they are produced by the hand of man or by the general laws of physics, are not actual creations but solely modifications of matter. ‘Putting together’ and ‘separating’ are the only elements which can be found in analyzing the idea of reproduction; and the same applies to the reproduction of value” (use-value, though Verri in his controversy with the Physiocrats is not quite certain himself which kind of value he is speaking of) and of wealth, when earth, air, and water transmute themselves in the fields into grain, or if by the hand of man the secretion of an insect transmutes itself into silk, or if some metal pieces are arranged in order to form a watch.” [Ver04, pp. 21, 22]

¹³ „Alle Erscheinungen des Weltalls, seien sie hervorgerufen von der Hand des Menschen oder durch die allgemeinen Gesetze der Physik, sind nicht tatsächliche Neuschöpfungen, sondern lediglich eine Umformung des Stoffes. Zusammensetzen und Trennen sind die einzigen Elemente, die der menschliche Geist immer wieder bei der Analyse der Vorstellung der Reproduktion findet; und ebenso verhält es sich mit der Reproduktion des Wertes“ (Gebrauchswert, obgleich Verri hier in seiner Polemik gegen die Physiokraten selbst nicht recht weiß, von welcher Sorte Wert er spricht) „und des Reichtums, wenn Erde, Luft und Wasser auf den Feldern sich in Korn verwandeln oder auch wenn sich durch die Hand des Menschen die Abscheidung eines Insekts in Seide verwandelt, oder einige Metallteilchen sich anordnen, um eine Repetieruhr zu bilden.“ [Ver04, pp. 21, 22]

Now back to the main text: Nature not only delivers the material on which labor acts, but the labor process itself is assisted by natural forces.

What is more, in this labor of forming he is constantly helped by natural forces.

Noch mehr. In dieser Arbeit der Formung selbst wird er beständig unterstützt von Naturkräften.

↓ Summary: However indispensable labor is, it is not the only ingredient necessary to produce the use-values which humans need. Extra-human nature is the basis of all material wealth. (Marx does not say here that much of this extra-human wealth can be use-values without labor input because humans are part of a self-supporting biosphere.)

We see, then, that *labor is not the only source of the use-values it produces* or of *material wealth*. As William Petty puts it: labor is its father and the earth its mother.

Arbeit ist also *nicht die einzige Quelle der von ihr produzierten Gebrauchswerte*, des *stofflichen Reichtums*. Die Arbeit ist sein Vater, wie William Petty sagt, und die Erde ist seine Mutter.

Question 163 When Marx wrote that labor is the father and natural forces are the mother of use-values, should he also have included produced means of production in addition to nature and labor? 2010fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 1999SP.

1.2. Double Character of Labor

Exam Question 165 *Is labor the only source of the use-values of its products, or do other factors contribute to the use-values as well? Is labor the only source of the values of its products, or do other factors contribute to the values as well? (“Value” is here the immaterial ingredient inside the commodities which makes them exchangeable.)* 2013fa, 2012fa, 2011fa, 2010fa, 2005fa, 2004fa, 2000fa, 1999SP, 1997WI, 1996sp, 1995ut, 1995WI.

In his *Critique of Gotha Programme*, marginal note to the first part of §1, p. [mecw24] 81:2, Marx says the same thing:

Labor is *not the source* of all wealth. *Nature* is just as much the source of use-values (and it is surely of such that material wealth consists!) as labor, which itself is only the manifestation of a force of nature, human labor-power.

Die Arbeit ist *nicht die Quelle* alles Reichtums. Die *Natur* ist ebensosehr die Quelle der Gebrauchswerte (und aus solchen besteht doch wohl der sachliche Reichtum!) als die Arbeit, die selbst nur die Äußerung einer Naturkraft ist, der menschlichen Arbeitskraft.

Question 167 *Saying that labor is the source of all wealth seems a pro-worker stance. In [mecw24]81:2, Marx argues on the contrary that the assertion that labor is the only source of use-values is a pro-capitalist and anti-worker ideology. Can you guess, without going to Marx’s text, how that can be the case?* 2013fa, 2008fa, 2008SP, 2007SP, 2002fa, 2000fa, 1997ut, 1996ut, 1995WI.

1.2.b. [Labor Producing Value: Quality]

53:2 Let us now pass from the commodity, so far as it is a useful object, to the *value* of commodities.

It is still the same two commodities as in 51:2, but now we are looking at them as values instead of use-values:

53:3 By our assumption, the coat is worth twice as much as the linen. But this is merely a *quantitative* difference, which does not yet interest us at this point.

58:1 Gehn wir nun von der Ware, soweit sie Gebrauchsgegenstand, über zum Waren-Wert.

58:2/o Nach unserer Unterstellung hat er Rock den doppelten Wert der Leinwand. Dies ist aber nur ein *quantitativer* Unterschied, der uns zunächst noch nicht interessiert.

When discussing the use-value aspect of labor, in 52:1, Marx had begun with the differences between the *use-values* of coat and linen. Now he begins with the differences between their *values*. But the difference between their values is *merely* a quantitative, instead of a qualitative, difference. Why “merely”? Because if one starts from a quantitative difference it is easy to get equality:

We recall, therefore, that if the value of the coat is double that of 10 yds. of linen, 20 yds. of linen have the *same magnitude of value* as one coat.

Wir erinnern daher, daß, wenn der Wert eines Rockes doppelt so groß ist als der von 10 Ellen Leinwand, 20 Ellen Leinwand *die-selbe Wertgröße* haben wie ein Rock.

“Doppelt so groß als” should be

“doppelt so groß wie.” Marx often

confuses “als” and “wie.”

Marx will return to the *quantitative difference* on p. 55:2; but right now we arrived, by the simple trick of doubling the amount of linen, at two commodities which can be exchanged for each other.

1. The Commodity

As values, the coat and the linen are things of a *like substance*, objective expressions of *labor of the same kind*.

Als Werte sind Rock und Leinwand Dinge von *gleicher Substanz*, objektive Ausdrücke *gleichartiger Arbeit*.

This was the result gained earlier, in 48:2. At that earlier point, Marx did not explain very well what that means. This explanation is given here. Marx begins with the remark that tailoring and weaving, as *useful* labors, cannot be the basis for value, because they are (as was stressed in 52:1 during the discussion of the use-value aspect of labor) qualitatively different:

But *tailoring* and *weaving* are two qualitatively different labors.

Aber Schneiderei und Weberei sind qualitativ verschiedene Arbeiten.

↓ Despite these differences, Marx brings now three examples in which different kinds of labors are treated as equal—not on the market but in production itself:

There are, however, states of society in which *one and the same man* does tailoring and weaving alternately, so that these two forms of labor are mere *modifications of the labor of the same individual* and not yet specialized and fixed functions of different persons; just as the coat which our tailor makes one day, and the trousers which he makes another day, require only a variation in the labor of one and the same individual. Moreover, we see at a glance that, in our capitalist society, *a given portion of human labor* is, in accordance with the varying demand, at one time supplied in the form of spinning, and at another in the form of weaving. This change may not always take place without friction, but take place it must.

Es gibt jedoch Gesellschaftszustände, worin *derselbe Mensch* abwechselnd schneidert und webt, diese beiden verschiedenen Arbeitsweisen daher nur *Modifikationen der Arbeit desselben Individuums* und noch nicht besondere feste Funktionen verschiedener Individuen sind, ganz wie der Rock, den unser Schneider heute, und die Hosen, die er morgen macht, nur Variationen derselben individuellen Arbeit voraussetzen. Der Augenschein lehrt ferner, daß in unsrer kapitalistischen Gesellschaft, je nach der wechselnden Richtung der Arbeitsnachfrage, *eine gegebene Portion menschlicher Arbeit* abwechselnd in der Form von Schneiderei oder in der Form von Weberei zugeführt wird. Dieser Formwechsel der Arbeit mag nicht ohne Friktion abgehen, aber er muß gehen.

↑ To recapitulate, these three examples are (1) there are societies in which the same person routinely weaves and tailors, i.e., there is no division of labor between these two activities; (2) even today when the division of labor is deeper, each individual still performs different labors in turn; and (3) under capitalism, workers frequently change jobs, i.e., they switch from one compartment of the social division of labor to another. (This migration undermines the justification of the division of the working class into separate professions: if most people are able to do most kinds of labor, then such compartmentalization is not necessary.)

↓ Now Marx brings the resolution, explaining in what respect different labors are equal (and why the just-mentioned switches between different labors are possible and indeed so common).

54:1/o If we disregard the specificity of the productive activity and therefore the useful character of the labor, then nothing remains of it but that it is an *expenditure of human labor-power*. Tailoring and weaving, though qualitatively different productive ac-

Sieht man ab von der Bestimmtheit der produktiven Tätigkeit und daher vom nützlichen Charakter der Arbeit, so bleibt das an ihr, daß sie eine *Verausgabung menschlicher Arbeitskraft* ist. Schneiderei und Weberei, obgleich qualitativ verschiedene produktive

1.2. Double Character of Labor

tivities, are both the productive expenditures of *human* brains, nerves, and muscles, and in this sense are both *human labor*.

Tätigkeiten, sind beide produktive Verausgabung von *menschlichem* Hirn, Muskel, Nerv, Hand, usw., und in diesem Sinn beide *menschliche Arbeit*.

All these labor processes have something in common. By using the same phrase “human labor” for the different activities weaving, spinning, etc., our language already implies that they have something in common. Marx will discuss this again in 60:4/o. Footnote 17a to that later paragraph 60:4/o refers explicitly to the use of the word “labor.” The mind can make abstractions in various ways, and not all of them have social significance. For instance, in his discussion of the various attempts to explain what a machine is, in 374:5/o, Marx gives examples of abstractions which are useless for an understanding of the economic function of machinery under capitalism. The abstraction “labor,” by contrast, has been singled out by Marx in *Grundrisse* 40:2–42:1 as an abstraction which, although it is valid in all epochs, obtains its “full validity” only under capitalism—because under capitalism, labor has social significance only as *abstract labor*.

Question 169 Define abstract labor and explain why Marx’s theory can be summarized as: “Under capitalism, labor has social significance only as abstract labor.” 2013fa, 2008fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 1997ut, 1997sp, 1997WI, 1996sp.

On the one side, the labor process is the application of human skills which transforms the bodily properties of the product; on the other side, it is the expenditure of human brain, muscles, nerves, etc. Abstract labor is, as the word says, an abstraction, but it is a “real” abstraction. In *Contribution*, 272:3/o, Marx calls the reduction of different labors to undifferentiated, homogeneous, simple labor a “real abstraction”:

This reduction takes the form of an abstraction, but it is an abstraction that is made every day in the social process of production. The dissolution of all commodities into labor-time is no greater an abstraction, and is no less real, than the dissolution of all organic bodies into air.

Diese Reduktion erscheint als eine Abstraktion, aber es ist eine Abstraktion, die in dem gesellschaftlichen Produktionsprozeß täglich vollzogen wird. Die Auflösung aller Waren in Arbeitszeit ist keine größere Abstraktion, aber zugleich keine minder reelle als die aller organischen Körper in Luft.

Not only can a chemist, in his mind, make the “abstraction” that all organic compounds are basically the combination of carbon and hydrogen atoms, but the process of burning, which transforms *C* into *CO*₂ and *H* into *H*₂*O*, implements this abstraction in reality. The fact that all organic compounds consist of *C* and *H* atoms makes it possible for them to burn, but this fact alone does not mean that they are indeed burning. (But the fact that our world is in a combustible state, far from chemical equilibrium, should remind us that the environment we live in is the creation of living organisms—the word “organic” has therefore a modern justification as well.) Just as burning is a real abstraction in nature, so the reduction of all commodities to the expenditure of human labor-power contained in them is a real abstraction made in society whenever there is commodity production. Note that Marx uses air in a different metaphor in 84:1/o.

Question 170 Carefully explain the meaning of the statement: “The dissolution of all commodities into labor-time is no greater an abstraction, and is no less real, than the dissolution of all organic bodies into air.” 2007fa, 2005fa, 2004fa, 2003fa.

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Question 171 Why is the abstraction which leads to abstract labor a “real” abstraction? At the same time you should also explain why the abstraction of all organic bodies into air is a “real” abstraction.

Since this is so important, I will bring here three more passages underlining that this abstraction has a basis in reality. In 82:1, Marx writes:

For in the first place, however varied the useful labors or productive activities might be, it is a *physiological* truth that they are functions of the *human* organism, and that each such function, whatever may be its nature or its form, is essentially the *expenditure* of human brain, nerves, muscles, sense organs, etc.

Denn erstens, wie verschieden die nützlichen Arbeiten oder produktiven Tätigkeiten sein mögen, es ist eine *physiologische* Wahrheit, daß sie Funktionen des *menschlichen* Organismus sind und daß jede solche Funktion, welches immer ihr Inhalt und ihre Form, wesentlich *Verausgabung* von *menschlichem* Hirn, Nerv, Muskel, Sinnesorgan usw. ist.

↑ This is always true, and this is why all these activities are called “labor.” Commodity production adds another element to this, namely the *comparison* between different labors. ↓ The following passage, as the preceding one, is taken from the commodity fetishism section, 84:0b:

Equality of entirely *different kinds of labor* can be arrived at only by an *abstraction from their real inequality*, by a reduction to the characteristic they have in common, that of being the *expenditure of human labor-power*, being *human labor* in the abstract.

Die *Gleichheit* toto coelo *verschiedner Arbeiten* kann nur in einer *Abstraktion von ihrer wirklichen Ungleichheit* bestehen, in der Reduktion auf den gemeinsamen Charakter, den sie als *Verausgabung menschlicher Arbeitskraft*, abstrakt *menschliche Arbeit*, besitzen.

↓ Finally another place from section 3 of chapter One, 68:2, which also alludes to this comparison.

In tailoring, as well as in weaving, human labor-power is expended. Both, therefore, possess the general property of being human labor, and there may be cases, such as the production of value, in which they must be considered only under this aspect.

In der Form der Schneiderei wie in der Form der Weberei wird menschliche Arbeitskraft verausgabt. Beide besitzen daher die allgemeine Eigenschaft menschlicher Arbeit und mögen daher in bestimmten Fällen, z.B. bei der Wertproduktion, nur unter diesem Gesichtspunkt in Betracht kommen.

Exam Question 172 What is abstract human labor? I want you to say what it is, not what its significance is in commodity-producing society! These are two different questions. 2013fa, 2012fa, 2011fa, 2010fa, 2003fa, 2001fa, 1999SP, 1997WI, 1996sp, 1995ut, 1995WI.

To sum up, labor is the expenditure of human brain, muscle, etc. in all societies. This abstraction of labor can always be made theoretically. But only in commodity production is this abstraction made not only by a theoretical onlooker but by society itself. And the difference is as drastic as the difference between a chemist analyzing the chemical composition of organic matter and organic matter burning. After this digression about real abstractions, let us turn back to the text we are presently discussing. After discussing abstract labor, Marx looks more closely at that what these abstract labors have in common. This leads to the concept of labor-power:

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They are but two different forms of expending human labor-power.

Es sind nur zwei verschiedene Formen, menschliche Arbeitskraft zu verausgaben.

Exam Question 174 *What is the difference between labor and labor-power?* 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007SP, 2005fa, 2004fa, 2002fa, 1999SP, 1998WI, 1997ut, 1997sp, 1997WI, 1996ut, 1996sp, 1995ut, 1995WI.

Although tailoring and weaving are usually done by different people, they could in principle be done by the same person. The concept of human labor-power (potential labor instead of actual labor) contains an abstraction from the various useful activities in which the labor-power can be realized. What the different labors have in common is that all labors are the expenditure of human labor-power.

Let us take stock where we are in the argument. We will backtrack a little, in order to show the parallel questions arising on different levels.

Looking at the sphere of exchange, Marx made the observation that through the exchange, the different use-values are treated as equals. This led to the question: what are the grounds for this equal treatment? Is it a social fiction valid only on the surface of the economy, or are the commodities really somehow equal?

Since the commodities as *use-values* have nothing in common, Marx adopts the view of Classical economics, the mainstream of his time, that their equality must come from the labor producing them. But there is a problem. Although labor is something all commodities have in common, the word “labor” is an abstraction referring to the most diverse processes. The specific labors producing different commodities are clearly not equal. The dilemma is still there, it is merely shifted from the surface to the sphere of production. But here, on the level of the labors, this dilemma can indeed be solved—because the labor processes producing these various use-values *really have something in common*, whereas the commodities as use-values do not. All labor, whatever its concrete form, is also “abstract labor”—not because we can think about it in the abstract, but because all labor is the expenditure of human labor-power, i.e., human nerves, brains, muscles etc. Abstract labor in this definition is a real aspect of every labor process.

Finally, if one takes a closer look at labor-power, the same dilemma pops up for a third time. After encountering it on the level of use-values and on the level of labor, we encounter it now on the level of labor-power. The dilemma is: although we arrived at labor-power in our search for something that is equal in commodities and therefore for the basis for the equalization of all commodities through the exchange, and although it is true that the labor-powers of different individuals are largely similar, they are still not entirely equal.

It is true, human labor-power itself must be more or less developed before it can be expended in different forms. But the value of a commodity represents human labor plain and simple, the expenditure of *human labor* in general.

Allerdings muß die menschliche Arbeitskraft selbst mehr oder minder entwickelt sein, um in dieser oder jener Form verausgabt zu werden. Der Wert der Ware aber stellt menschliche Arbeit schlechthin dar, Verausgabung *menschlicher Arbeit* überhaupt.

Fowkes translates “*allerdings*” with “of course.” This gives a wrong connotation. After “of course,” one expects an objection

whose refutation was already implied in what was said before. But Marx is about to bring some new arguments which have not

been anticipated above. Moore-Aveling write “it is true,” which is the better translation.

1. The Commodity

The clause “it is true” (*allerdings*) is Marx’s admission that we still haven’t arrived at something entirely homogeneous. Although most people in society could perform, or could be trained to perform, most jobs in society, not everybody could do every job. There are still differences in labor-power. This is what Marx is going to discuss next.

Marx’s formulation “this human labor-power itself must be more or less developed before it can be expended in different forms” is a little misleading: it might create the impression that all differences between different labor-powers are of a purely quantitative nature (“*more or less*”). Quantitative differences between labor-powers are consistent with market relations, because quantitative differences imply qualitative equality.

But the qualitative differences between different labor-powers can arise in different ways:

1. Labor-power may differ by its development (schooling, training, experience). This can be naturally reduced to a quantitative difference, since one can say the value of the product not only comes from the time the laborer is working productively, but also from the training time. If a surgeon spends 15 years learning to perform a certain operation, and then performs this operation for another 15 years, then every hour he is working in the latter 15 years would be creating *twice* as much value as an unskilled laborer. If one includes the labor performed by his teachers and the labor necessary to produce the materials and equipment used during this training, one obtains an even higher ratio. (Nevertheless, the higher earnings of a surgeon in the U.S. more than make up for this, but we are talking here about value created, not income earned.)
2. However there are some differences between labor-powers which cannot be reduced to quantitative differences. There are things certain individuals can do and others cannot do, even with the best training.

Marx mentions only differences in development, because *most* differences between labor-powers are differences in development, and because this gives a good transition to simple unskilled labor, which Marx will discuss next. But from other scattered remarks it can be inferred that Marx was aware that *some* such differences do not have to do with development. Especially interesting is the footnote 18 to p. 208:1, almost at the end of chapter Seven, where Marx makes the following points:

- The differences in labor-powers are smaller than is generally believed, and these differences may have accidental causes.
- With the development of capitalist production these differences tend to be reduced further by progressively de-skilling many labor processes.
- Whatever differences remain, they are reflected in *quantitative* differences as to how much value one hour of labor creates—although the differences between different labor-powers are by no means always of a quantitative nature.

Here is therefore a complete solution of the third dilemma, that by exchanging the products of labor, society acts as if all labor-powers were equal, but in reality they are not: Most differences between labor-powers are differences in training, and these differences can be naturally reduced to quantitative differences. Some qualitative differences between labor-powers remain which have nothing to do with training. There is no general law governing the reduction of these remaining differences to quantitative differences. The terms of their quantitative reduction are decided case by case; it may depend on the constellation of demand and supply, or on the relative strength of the contending interests at the given time.

Question 176 *The exchange of commodities poses a dilemma: what are the grounds for treating tangibly different commodities as equals? This dilemma is then also echoed on the level of the labors producing these commodities, and on the level of labor-powers. On each of these three levels the dilemma has a different resolution. Describe these three different resolutions.* 2009fa, 2007fa, 2007SP, 2004fa, 2001fa.

In the passage we are presently discussing, Marx's emphasis is not on the modalities of this reduction, but on the character of that kind of labor-power which serves as the measuring stick, that to which all other labor-powers are reduced. He argues that it is the simple "unskilled" labor everyone in the given society is able to perform, and before even saying this he comments that this amounts to a shoddy treatment of the human factor in capitalist society:

And just as in bourgeois society a general or a banker plays a great role, while mere *man*, on the other hand, has a very shabby part,¹⁴ so here with *human labor*. It is the expenditure of *simple* labor-power, i.e., of labor-power which, on the average, apart from any particular development, exists in the organism of every ordinary individual.

Wie nun in der bürgerlichen Gesellschaft ein General oder Bankier eine große, der *Mensch* schlechthin aber eine sehr schäbige Rolle spielt,¹⁴ so steht es auch hier mit der *menschlichen Arbeit*. Sie ist Verausgabung *einfacher* Arbeitskraft, die im Durchschnitt jeder gewöhnliche Mensch, ohne besondere Entwicklung, in seinem leiblichen Organismus besitzt.

¹⁴ Hegel, *Philosophy of Right*, §190.

¹⁴ Vgl. Hegel, „Philosophie des Rechts“, Berlin 1840, §190.

Footnote 14 is a reference to Hegel, *Philosophy of Right*, §190.

"Bourgeois society" is a term occasionally used by Marx for capitalist society. In capitalist society, humans are defined by the social functions they assume, whereas usually little attention is paid to the human individual supporting these functions. In the same way, a society in which *congealed* labor, value and capital, is in highest esteem, assigns to *living* labor a very shabby part. It is a sociological paradox that unskilled labor, which creates all value, is generally sneered at in capitalist society.

The first edition, p. 24:2/o, gives here the example that the labor of a farm hand may produce twice as much value per day than that of a tailor. Next Marx remarks that there are national differences regarding the character of simple and unskilled labor. Although this is important for an understanding of international trade, it will be disregarded here:

Simple average labor, it is true, varies its character in different countries and different cultural epochs, but is given once the society is given.

Die *einfache Durchschnittsarbeit* selbst wechselt zwar in verschiedenen Ländern und Kulturepochen ihren Charakter, ist aber in einer vorhandenen Gesellschaft gegeben.

Next Marx discusses how the labor which is *not* simple labor is expressed in value:

More complicated labor counts merely as *potentiated* or rather *multiplied* simple labor, so that a smaller amount of complicated labor is equal to a bigger amount of simple labor.

Kompliziertere Arbeit gilt nur als *potenzierter* oder vielmehr *multiplizierte* einfache Arbeit, so daß ein kleineres Quantum komplizierter Arbeit gleich einem größeren Quantum einfacher Arbeit.

"Potentiated" means here: labor of higher potency. The word "multiplied," which Marx prefers to the word "potentiated," better expresses that the difference is quantitative, not qualitative. Marx does not say here: "more complicated labor *is* multiplied simple labor," but he uses the formulation "*counts as* multiplied simple labor." There is a qualitative difference

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between simple and complicated labor; one cannot get the latter by multiplying the former. Even if you assemble 1,000 untrained construction workers, and give them a liberal amount of time for the task at hand, they still won't be able to do the work of a doctor or a scientist or a virtuoso musician. But commodity producing society acts as if complicated labor were a mere multiple of simple labor. This is what Marx means with the word "counts." The word "merely" in "counts *merely* as" stresses that a qualitative difference, that between simple and complicated labor, is reduced to a *merely* quantitative one (this phrase is used in 53:3/o).

That this reduction is constantly being made is shown by experience.

Daß diese Reduktion beständig vorgeht, zeigt die Erfahrung.

Question 178 Which experience is Marx referring to when he says in 134:3/o: "That this reduction is constantly being made is shown by experience."? 2012fa.

What experience? The experience that markets, which pretend that all labor-powers are equal or at most quantitatively different, flourish despite the fact that there are some remaining qualitative differences among labor-powers. Marx's appeal to experience is on the one hand an admission that there is no general law governing this reduction, and on the other hand the experience he appeal to exists only because markets flourish despite this indeterminacy. Even if the few qualitative differences in labor-power which cannot be reduced to differences in training and therefore cannot be easily quantified, cause some inefficiencies in the allocation of labor-power, the markets have done a good enough job to regulate the economy.

A commodity may be the product of the most complicated labor, but its *value* equates it to the product of simple labor, therefore this value only represents a certain amount of simple labor.¹⁵

Eine Ware mag das Produkt der kompliziertesten Arbeit sein, ihr *Wert* setzt sie dem Produkt einfacher Arbeit gleich und stellt daher selbst nur ein bestimmtes Quantum einfacher Arbeit dar.¹⁵

↓ In a footnote, Marx reminds us that at the present time we are not yet talking about the income received by the workers, but about the value they produce:

¹⁵ The reader must be aware that we are not speaking here of the *wages* or values that the laborer receives for a given labor-time, but of the *value* of the commodity in which that labor-time is materialized. Wages is a category that does not even exist yet at this stage of our presentation.

¹⁵ Der Leser muß aufmerken, daß hier nicht vom *Lohn* oder Wert die Rede ist, den der Arbeiter für etwa einen Arbeitstag erhält, sondern vom *Warenwert*, worin sich sein Arbeitstag vergegenständlicht. Die Kategorie des Arbeitslohns existiert überhaupt noch nicht auf dieser Stufe der Darstellung.

↑ This footnote explicitly refers to Marx's method of taking up one thing after another; certain things do not yet "exist." [Rei70, p. 131]

Question 179 In a footnote to 134:3/o, Marx says that the category of wages does not yet exist at the present stage of the representation. Find other places in Capital where he says that certain categories do not yet "exist" for him.

The different proportions, in which different sorts of labor are reduced to simple labor as their *standard*, are established by a social process that goes on behind the backs of the producers and, consequently, seems to be fixed by custom. For simplicity's sake

Die verschiedenen Proportionen, worin verschiedene Arbeitsarten auf einfache Arbeit auf ihre *Maßeinheit* reduziert sind, werden durch einen gesellschaftlichen Prozeß hinter dem Rücken der Produzenten festgesetzt und scheinen ihnen daher durch das Her-

1.2. Double Character of Labor

we shall henceforth consider every kind of labor-power to be immediately *simple* labor-power; by this we do no more than save ourselves the trouble of making the reduction.

kommen gegeben. Der Vereinfachung halber gilt uns im Folgenden jede Art Arbeitskraft unmittelbar für *einfache* Arbeitskraft, wodurch nur die Mühe der Reduktion erspart wird.

It has sometimes been argued that the reduction of complicated to simple labor is a circular argument invalidating the labor theory of value. I see it as an instance in which the “dirty” reality is not entirely congruous with the forms of social interaction that have developed in a capitalist economy. Although commodity exchange presumes that all labor-powers are equal, there are in fact differences, which are however usually small. To repeat, this has two consequences. Under developed commodity exchange (capitalism) there is the tendency to equalize and de-skill the labors. This well-known fact itself corroborates the thesis that abstract labor constitutes the substance of value. The remaining differences are treated as quantitative differences only. This reduction of qualitative to quantitative differences in labor-power does not follow a general law but depends on constellational, irregular (“accidental”) circumstances, such as discrepancies between demand and supply, or custom.

Question 181 *Is Marx’s appeal to experience regarding the reduction of complicated to simple labor a circular argument?* [2010fa](#), [2007fa](#), [2007SP](#), [1997ut](#).

The next paragraph gives a summary, parallel to [52:3](#). This summary compares the things said about value and abstract labor to the things said about use-value and concrete labor. This comparison backs up the claim made in [51:1](#) that the characteristics of labor creating use-value are different than those of labor creating value. Here is the first of three comparisons:

[55:1](#) In the *values* coat and linen, abstraction is made from the difference of their *use-values*; now we have seen that also in the *labor* that represents itself in these values, abstraction is made from the difference of its *useful forms tailoring and weaving*.

[59:1/o](#) Wie also in den *Werten* Rock und Leinwand von dem Unterschied ihrer *Gebrauchswerte* abstrahiert ist, so in den *Arbeiten*, die sich in diesen *Werten* darstellen, von dem Unterschied ihrer *nützlichen Formen*, der *Schneiderei* und *Weberei*.

Moore-Aveling again transpose it into the epistemological realm when they write: “Just as,

therefore, in viewing the coat and linen as values, we abstract from their different use-values.” Fowkes

makes the same error.

Second comparison:

The *use-values* coat and linen are the *combinations* of purposeful productive activities with cloth or yarn. The *values* coat and linen are, in contrast, mere *homogenous congelations of labor*. Now we have seen that also the labor contained in these *values* does not count by virtue of its productive functions towards cloth and yarn, but only as *expenditures of human labor-power*.

Wie die *Gebrauchswerte* Rock und Leinwand *Verbindungen* zweckbestimmter, produktiver Tätigkeiten mit Tuch und Garn sind, die *Werte* Rock und Leinwand dagegen bloße *gleichartige Arbeitsgallerten*, so gelten auch die in diesen *Werten* enthaltenen Arbeiten nicht durch ihr produktives Verhalten zu Tuch und Garn, sondern nur als *Verausgabungen menschlicher Arbeitskraft*.

Third comparison:

Tailoring and weaving are necessary elements in the creation of the *use-values* coat

Bildungselemente der *Gebrauchswerte* Rock und Leinwand sind Schneiderei und We-

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and linen, precisely by their *different* qualities, but they are the *substance* of the *values* of coat and linen only in so far as *abstraction* is made from their particular qualities and both possess the *same quality*, the *quality of human labor*.

berei eben durch ihre *verschiedenen* Qualitäten; *Substanz* des Rockwerts und Leinwandwerts sind sie nur, soweit von ihrer besondern Qualität *abstrahiert* wird und beide *gleiche Qualität* besitzen, die *Qualität menschlicher Arbeit*.

Question 182 *Just as a horse has muscles and bones in it, a commodity has useful labor and abstract labor in it. Explain. Is this also true for a product which is not a commodity?* 2010fa, 2009fa, 2007fa.

1.2.c. [Labor Producing Value: Quantity]

After discussing commodities with equal values, Marx now turns to commodities with unequal values. This inequality can only be a *quantitative* inequality. Some of this discussion repeats 50:1, but important additions are made. ↓ If you take two arbitrary commodities, their values are usually different.

55:2 Coats and linen, however, are not merely values in general, but values of given magnitudes and, following our assumption, the coat is worth twice as much as the 10 yards of linen. Where does this difference in value come from? From the fact that the linen contains only half as much labor as the coat, i.e., labor-power has to be expended twice as long to produce the second as to produce the first.

60:1 Rock und Leinwand sind aber nicht nur Werte überhaupt, sondern Werte von bestimmter Größe, und nach unserer Unterstellung ist der Rock doppelt soviel wert als 10 Ellen Leinwand. Woher diese Verschiedenheit ihrer Wertgrößen? Daher, daß die Leinwand nur halb soviel Arbeit enthält als der Rock, so daß zur Produktion des letzteren die Arbeitskraft während doppelt soviel Zeit verausgabt werden muß als zur Produktion der erstern.

↑ The formulation “the coat *contains* twice as much labor as the linen” is a metaphor. The second half of the last sentence above explains how this metaphor is to be read: labor-power has to be expended twice as long to produce the coat than the linen. Not “is” expended but “has to be” expended because the *necessary* labor is twice as long. Marx will be much more explicit about this point later, in 536:2/o.

55:3 While, therefore, with reference to use-value, the labor contained in a commodity counts only qualitatively, with reference to value it counts only quantitatively, after being reduced to human labor pure and simple. In the former case it was a matter of the ‘how’ and the ‘what’ of labor, in the latter of the ‘how much’, of the temporal duration of labor.

60:2 Wenn also mit Bezug auf den Gebrauchswert die in der Ware enthaltene Arbeit nur qualitativ gilt, gilt sie mit Bezug auf die Wertgröße nur quantitativ, nachdem sie bereits auf menschliche Arbeit ohne weitere Qualität reduziert ist. Dort handelt es sich um das Wie und Was der Arbeit, hier um ihr Wieviel, ihre Zeitdauer.

↑ FIXME does this fit here? I am typing in a very old comment and do not really know where this comment belongs. “Handelt es sich” Marx does not make it clear enough that this is ontological, not epistemological. Epistemological would mean: use-value and value are two aspects under which to look at the commodity. If one looks at it under the aspect of use-values, then one is interested in the how and what of the labor, and if one looks at it under the aspect of the value and, more precisely, is interested in the magnitude of value,

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then one is interested in the duration of the labor. Ontological would mean: Regardless whether someone looks at it or not, the social relation “value” between commodities is such that the magnitude of value is based on the duration of labor, not on the “how” and “what” of labor. It is not just that we as observers choose not to look at the “how” and “what,” but the social relation “value” makes abstraction of the “how” and “what.”

Question 183 Marx says in 136:2: “With reference to use-value, the labor contained in a commodity counts only qualitatively.” This seems to be in contradiction to things he says elsewhere. More labor produces more product, and the quantity of a product is relevant for its use-value. In 126:1 Marx says: “When examining use-values, we always assume to be dealing with well-defined quantities, such as dozens of watches, yards of linen, or tons of iron.” Is this an inconsistency in Marx’s theory?

↓ This creates on the level of production the same effect which is already present in circulation, visible for all, see 47:3–48:1.

Since the magnitude of the value of a commodity represents nothing but the quantity of labor embodied in it, it follows that all commodities, when taken in the right proportions, must be equal in value.

Da die Wertgröße einer Ware nur das Quantum der in ihr enthaltenen Arbeit darstellt, müssen Waren in gewisser Proportion stets gleich große Werte sein.

↑ The equalization of all commodities on the surface through the exchange-relations has therefore a counterpart in production. In the production process, all commodities are equalized because they all represent abstract human labor.

1.2.d. [Changes in Productivity]

55:4/o If the productivity of all the different sorts of useful labor required, let us say, for the production of a coat remains unchanged, the total value of the coats produced will increase along with their quantity. If one coat represents x days’ labor, two coats will represent $2x$ days’ labor, and so on. But now assume that the duration of the labor necessary for the production of a coat is doubled or halved. In the first case, one coat is worth as much as two coats were before; in the second case two coats are only worth as much as one was before, although in both cases one coat performs the same service, and the useful labor contained in it remains of the same quality. One change has taken place, however: a change in the quantity of labor expended to produce the article.

60:3 Bleibt die Produktivkraft, sage aller zur Produktion eines Rocks erheischten nützlichen Arbeiten unverändert, so steigt die Wertgröße der Röcke mit ihrer eignen Quantität. Wenn 1 Rock x , stellen 2 Röcke $2x$ Arbeitstage dar usw. Nimm aber an, die zur Produktion eines Rocks notwendige Arbeit steige auf das Doppelte oder falle um die Hälfte. Im ersten Fall hat ein Rock soviel Wert als vorher zwei Röcke, im letztern Fall haben zwei Röcke nur soviel Wert als vorher einer, obgleich in beiden Fällen ein Rock nach wie vor dieselben Dienste leistet und die in ihm enthaltene nützliche Arbeit nach wie vor von derselben Güte bleibt. Aber das in seiner Produktion verausgabte Arbeitsquantum hat sich verändert.

Rising wealth can therefore be accompanied by decreasing value.

56:1 In itself, an increase in the quantity of use-values constitutes an increase in material wealth. Two coats will clothe two

60:4/o Ein größres Quantum Gebrauchswert bildet an und für sich größren stofflichen Reichtum, zwei Röcke mehr als einer.

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men, one coat will only clothe one man, etc. Nevertheless, an increase in the amount of material wealth may correspond to a simultaneous fall in the magnitude of its value.

↓ Next Marx asks where does this discrepancy in the movement come from? (Marx does not talk here about two movements, one of the use-values and one of the values, but he considers it one movement which is self-opposed.) In order to find the origin of this opposition, note that “how productive is a given labor?” is the same kind of question as: “which use-value does a given labor produce?” It refers to the concrete useful labor, not the abstract labor.

This self-opposed movement arises out of the two-edged character of labor. Productivity, of course, is always the productivity of concrete, useful labor; it determines how effective a purposeful productive activity can be in a given period of time. Useful labor becomes, therefore, a more or less abundant source of products in direct proportion as its productivity rises or falls. As against this, however, variations in productivity in themselves have zero impact on the labor represented in value. As productivity is an attribute of labor in its concrete useful form, it naturally ceases to have any bearing on that labor as soon as we abstract from its concrete useful form. The same labor, therefore, performed for the same length of time, always yields the same amount of value, independently of any variations in its productivity. But it provides different quantities of use-values during equal periods of time; more, if productivity rises; fewer, if it falls. For this reason, the same change in productivity which increases the fruitfulness of labor, and therefore the amount of use-values produced by it, also brings about a reduction in the value of this increased total amount, if it cuts down the total amount of labor-time necessary to produce the use-values. The converse also holds.

Since labor has a double character, it has two effects, that can be contradictory. The first German edition 26:3/o has here an additional paragraph emphasizing this contradiction: It follows from what has been said so far that, although it is not true that the commodity contains two different kinds of labor, nevertheless the *same* labor has differ-

Mit zwei Röcken kann man zwei Menschen kleiden, mit einem Rock nur einen Menschen usw. Dennoch kann der steigenden Masse des stofflichen Reichtums ein gleichzeitiger Fall seiner Wertgröße entsprechen.

Diese gegensätzliche Bewegung entspringt aus dem zwieschlächtigen Charakter der Arbeit. Produktivkraft ist natürlich stets Produktivkraft nützlicher, konkreter Arbeit und bestimmt in der Tat nur den Wirkungsgrad zweckmäßiger produktiver Tätigkeit in gegebenem Zeitraum. Die nützliche Arbeit wird daher reichere oder dürftigere Produktenquelle im direkten Verhältnis zum Steigen oder Fallen ihrer Produktivkraft. Dagegen trifft ein Wechsel der Produktivkraft die im Wert dargestellte Arbeit an und für sich gar nicht. Da die Produktivkraft der konkreten nützlichen Form der Arbeit angehört, kann sie natürlich die Arbeit nicht mehr berühren, sobald von ihrer konkreten nützlichen Form abstrahiert wird. Dieselbe Arbeit ergibt daher in denselben Zeiträumen stets dieselbe Wertgröße, wie immer die Produktivkraft wechsle. Aber sie liefert in demselben Zeitraum verschiedene Quanta Gebrauchswerte, mehr, wenn die Produktivkraft steigt, weniger, wenn sie sinkt. Derselbe Wechsel der Produktivkraft, der die Fruchtbarkeit der Arbeit und daher die Masse der von ihr gelieferten Gebrauchswerte vermehrt, vermindert also die Wertgröße dieser vermehrten Gesamtmasse, wenn er die Summe der zu ihrer Produktion notwendigen Arbeitszeit abkürzt. Ebenso umgekehrt.

Aus dem Bisherigen folgt, daß in der Ware zwar nicht zwei verschiedene Sorten Arbeit stecken, wohl aber *dieselbe* Arbeit verschieden und selbst entgegengesetzt bestimmt ist,

ent and even opposite determinations, according to whether it is seen in relation to the *use-value* of the commodity as its *product* or to the *commodity-value* as labor's own *material* expression. Just as the commodity must above all be a useful object in order to be value, so labor must above all be useful labor, purposeful productive activity, in order to count as *expenditure of human labor-power* and therefore as *human labor* pure and simple.

je nachdem sie auf den *Gebrauchswert* der Ware als ihr *Product* oder auf den *Waren-Wert* als ihren bloß *gegenständlichen* Ausdruck bezogen wird. Wie die Ware vor allem Gebrauchsgegenstand sein muß, um Wert zu sein, so muß die Arbeit vor allem nützliche Arbeit, zweckbestimmte produktive Tätigkeit sein, um als *Verausgabung menschlicher Arbeitskraft* und daher als *menschliche Arbeit* schlechthin zu zählen.

↑ The French edition [megaII/7]29:2 has a similar paragraph with the memorable formulation that “the same labor is here opposed to itself” (*le même travail y est opposé à lui-même*).

Question 184 Since productivity is a quality of useful labor, one might not expect it to play a great role in capitalism. But it does. Why? [2011fa](#), [2010fa](#), [2007SP](#).

Question 185 Discuss the implications of the fact that an increase in material wealth in the form of commodities may be accompanied by a decrease in the total amount of their value. Do you know examples from modern capitalism where this perverse relationship has detrimental effects? [2004fa](#), [2002fa](#), [2000fa](#), [1997WI](#), [1996ut](#), [1996sp](#), [1995WI](#).

Question 186 It is easy to see that with higher productivity a greater amount of use-values may represent a lower commodity-value (which depends on labor-content). But Marx's Capital 136:4/o says more than that. Marx claims that this discrepancy and even opposition comes from the two-edged character of labor. How does he argue this claim, or how might one argue for or against such a proposition? [2009fa](#).

56:2 On the one hand, all labor is an expenditure, in the physiological sense, of human labor-power, and in this quality of being equal human labor or abstract human labor, it forms the value of commodities. On the other hand, all labor is an expenditure of human labor-power in a particular form and with a specific aim, and in this quality of being concrete useful labor, it produces use-values.¹⁶

61:1 Alle Arbeit ist einerseits Verausgabung menschlicher Arbeitskraft im physiologischen Sinn, und in dieser Eigenschaft gleicher menschlicher oder abstrakt menschlicher Arbeit bildet sie den Warenwert. Alle Arbeit ist andererseits Verausgabung menschlicher Arbeitskraft in besonderer zweckbestimmter Form, und in dieser Eigenschaft konkreter nützlicher Arbeit produziert sie Gebrauchswerte.¹⁶

Three of these four statements are valid in all modes of production, while one statement, “and in this quality of being equal human labor or abstract human labor, it forms the value of commodities” is only valid in commodity producing societies.

In footnote 16, Marx plays two quotes from Adam Smith against each other:

¹⁶ In order to prove that ‘labor alone is the ultimate and real standard by which the value of all commodities can at all times and places be estimated and compared’, Adam Smith says this:

¹⁶ Um zu beweisen, „daß die Arbeit allein das endgültige und reale Maß ist, woran der Wert aller Waren zu allen Zeiten geschätzt und verglichen werden kann“, sagt A. Smith:

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The first quote sounds unobjectionable if taken by itself: “labor alone” is the ultimate standard of value. However in a second quote Smith adds that labor always has the same value to the laborer:

^{16 ctd} “Equal quantities of labor, at all times and places, must have the same value for the laborer. In his ordinary state of health, strength and activity; in the ordinary degree of his skill and dexterity, he must always lay down the same portion of his ease, his liberty, and his happiness.” *Wealth of Nations* [Smi39, Bk. I, ch. 5, pp. 104–5].

^{16 ctd} „Gleiche Quantitäten Arbeit müssen zu allen Zeiten und an allen Orten für den Arbeiter selbst denselben Wert haben. In seinem normalen Zustand von Gesundheit, Kraft und Tätigkeit und mit dem Durchschnittsgrad von Geschicklichkeit, die er besitzen mag, muß er immer die nämliche Portion seiner Ruhe, seiner Freiheit und seines Glücks hingeben.“ „Wealth of Nations“ [Smi39, Bk. I, ch. 5, pp. 104–5].

From the juxtaposition of these two quotes Marx draws four conclusions:

(1) When Smith wrote in the first quote “labor alone,” he did not really mean labor but he meant the value of labor to the worker. Otherwise he would not have found it necessary to prove, in the second quote, that the value of labor is always the same.

^{16 ctd} On the one hand, Adam Smith here (but not everywhere) confuses the determination of the values of commodities by the quantity of labor expended in their production with the determination of the values of commodities by the value of labor. This is why he finds it necessary to prove that equal quantities of labor always have the same value.

^{16 ctd} Einerseits verwechselt A. Smith hier (nicht überall) die Bestimmung des Werts durch das in der Produktion der Ware verausgabte Arbeitsquantum mit der Bestimmung der Warenwerte durch den Wert der Arbeit und sucht daher nachzuweisen, daß gleiche Quantitäten Arbeit stets denselben Wert haben.

(2) Now, “on the other hand,” Marx remarks that Smith’s attempt to prove that labor always has the same value also reflects some correct thinking:

^{16 ctd} On the other hand, he has the hunch that, in so far as labor manifests itself in the value of commodities, it only counts as an expenditure of labor-power.

^{16 ctd} Andererseits ahnt er, daß die Arbeit, soweit sie sich im Wert der Waren darstellt, nur als Verausgabung von Arbeitskraft gilt, ...

A proof that labor always has the same value is on the one hand necessary to round out Smith’s mistaken theory that the value of the products derives from the value of labor. But on the other hand this proof also reflects the correct insight that that which creates value must indeed be *homogeneous*. According to Marx, this homogeneous substance is not the value of labor but abstract human labor, the expenditure of labor-power. According to Smith, it is the disutility of labor (i.e. its value according to a subjective concept of value). It is not very far-fetched to confuse the expenditure of labor-power with the disutility of labor, since the expenditure of labor-power does take effort, which may create disutility.

(3) After finding a kernel of truth in Smith’s error, Marx shows that even in this most favorable reading, Smith is not completely right but makes an additional error:

^{16 ctd} But then he views this expenditure merely as the sacrifice of ease, liberty, and happiness, not also as man’s normal life activity.

^{16 ctd} ... faßt diese Verausgabung aber wieder bloß als Opfer von Ruhe, Freiheit und Glück, nicht auch als normale Lebensbetätigung.

According to Smith, it is the sacrifice and pain of the worker which creates value, while according to Marx, the value of the product arises from the fact that the worker’s life activity is directed towards this and not some other product. Smith’s transposition of labor itself into that what labor is for the humans is the error of *methodological individualism*.

Exam Question 187 How does Marx’s labor theory of value differ from an explanation of value by what today would be called the “disutility of labor,” i.e., the “sacrifice of ease,

liberty, and happiness"? 2013fa, 2012fa, 2011fa, 2008fa, 2004fa, 2002fa, 1999SP, 1997ut, 1997WI, 1996ut.

(4) Finally, Marx remarks that Smith's second error was inspired by the evidence of the modern wage relation:

^{16 ctd} He is guided here by the evidence of the modern wage laborer.

^{16 ctd} Allerdings hat er den modernen Lohnarbeiter vor Augen.

Smith's thesis that the value comes from the disutility of labor reflects the experience of the modern wage laborer in two ways:

(a) The payment of the price of labor to the laborer can be seen by everyone, while the fact that labor is the source of value (of more value than the laborer gets) is hidden. This leads to the assumption that the visible *price* of labor is the source of the value of the product, not the labor itself. This price is then explained by the value of the labor to the laborer.

(b) The exploitation inherent in capitalism leads to painful and abusive labor processes.

Question 188 *How was Smith influenced by the evidence of the modern wage laborer when he formulated his thesis that the value of a product is determined by the laborer's "sacrifice of ease, liberty, and happiness"? (Attempt this Question only if you know the answer to Question 187, and know something about Marx's theory of wage labor.)*

The influence of the wage labor relation on Smith's thinking is reminiscent of Marx's argument in 70:1, that Aristotele's analysis of the commodity, despite promising beginnings, did not advance past a certain point, due to the limitations of Greek society. However the next quote shows that other economists did not share Smith's error:

^{16 ctd} Adam Smith's anonymous predecessor, cited in note 9, is much nearer the mark when he says: 'One man has employed himself a week in providing this necessary of life ... and he that gives him some other in exchange, cannot make a better estimate of what is a proper equivalent, than by computing what cost him just as much labor and time: which in effect is no more than exchanging one man's labor in one thing for a time certain, for another man's labor in another thing for the same time' [Ano39, p. 39].

^{16 ctd} —Viel treffender sagt der Note 9 zitierte anonyme Vorgänger von A. Smith: „Ein Mann hat eine Woche auf die Herstellung dieses Bedarfsgegenstandes verwandt ... und der, welcher ihm einen anderen Gegenstand im Austausch gibt, kann nicht richtiger abschätzen, was wirklich gleichwertig ist, als durch die Berechnung, was ihm ebensoviel labor und Zeit kostet. Das bedeutet in der Tat den Austausch der labor, die ein Mensch in einer bestimmten Zeit auf einen Gegenstand verwandt hat, gegen die labor eines andren, in der gleichen Zeit auf einen andren Gegenstand verwandt.“ [Ano39, p. 39]

The end of footnote 16 is a remark by Engels about the whole section 2, "The Double Character of Labor.":

^{16 ctd} [Note by Engels to the fourth German edition:] The English language has the advantage of possessing two separate words for these two different aspects of labor. Labor which creates use-values and is qualitatively determined is called 'work' as opposed to 'labor'; labor which creates value and is only measured quantitatively is called 'labor', as opposed to 'work'.

^{16 ctd} — {Zur 4. Auflage: Die englische Sprache hat den Vorzug, zwei verschiedene Worte für diese zwei verschiedenen Aspekte der Arbeit zu haben. Die Arbeit, die Gebrauchswerte schafft und qualitativ bestimmt ist, heißt work, im Gegensatz zu labor; die Arbeit, die Wert schafft und nur quantitativ gemessen wird, heißt labor, im Gegensatz zu work. Siehe Note zur englischen Übersetzung, p. 14.—F. E.}

1. The Commodity

1.3. The Form of Value, or the Exchange-Value

Marx is in the midst of his discussion of value, which follows a simple scheme. After having discussed its substance (abstract labor) and magnitude (socially necessary labor-time), Marx discusses now its *form* (exchange-value), in a section bearing the title: “The Form of Value, or the Exchange-Value.”

Question 189 *If the first chapter is such a systematic discussion of value as Marx indicates in his summary [megaII/5]27:1, why is it then called “Commodities” and not “Value”? 2013fa, 2012fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2001fa, 2000fa, 1999SP, 1998WI.*

[From Form of Commodity to Form of Value]

[Marx’s Definition of Form of Value]

In capitalism, production is private. There is no direct coordination among producers or between producers and consumers. The only channel through which the many private production processes are in communication are the *products*, which interact on the market as commodities. Although individuals are interested in commodities because of their *use-values*, commodities have social relations with each other only through their *values*. Value is an invisible homogeneous “quasi-material” inside the commodities. The relations which commodities have with each other on the surface are *signs* pointing to this invisible substance. The present section 1.3 investigates these signs.

The German word *Wertform* must sometimes be translated as “form of value,” but most of the time the translation must be “value form” (of a commodity).

While value itself is a social relation of *production*, a *value form* of a commodity is a social relation governing the interactions between commodities on the *surface* of the economy. Since we are talking about a commodity society, all surface relations are attached to commodities, i.e., they are socially generated *properties* of commodities. Marx calls these properties “value forms” of the commodities. Unfortunately, the distinction between the concepts “form of value” and “value form” (which is not a form of value but a form of a commodity) is a little muddled in German because both are in German “*Wertform*.”

For such a social property of the commodity to qualify as a *value form* of this commodity, it must enable the commodity to which it is attached, as Marx writes in the First edition [megaII/5]631:1, “to *appear* to other commodities as value, to *count* as value, and to *act* on the other commodities as value” (my reformulation and emphasis). This is only possible if they can *express* their values. Production is organized well if the values of the privately produced commodities can find proper expression on the surface. In these Annotations I will try to show that the value forms of the commodities enable the economic agents to take two kinds of actions: (1) they give the producers the information necessary so that they can equalize their labors and produce their products as values, and (2) they allow the agents to take advantage of the values of the commodities in their possession. Marx never formulates these two criteria explicitly, but most of the time he talks about “value forms” he uses one of these two criteria.

[Summary of Marx's Argument]

The result of the current section 1.3 will be that two complementary value forms together generate and transmit the information needed by the private producers to produce their products as commodities. Marx is talking about the gold standard. One specific commodity (gold, but in principle it can be any commodity) is designated by society as *money*, i.e., it serves as the measuring stick for value and is accepted in exchange for all other commodities. All other commodities entering circulation have *prices*, i.e., their owners express the values of these commodities in gold money, and publicly announce how much money is necessary to buy them. Being the money commodity and having a price are both value forms of commodities, both are socially generated properties of commodities in circulation. A system of prices denominated in the same monetary unit enables the producers to select those production methods which only require socially necessary amounts of labor, and to allocate their labor to those areas of production which are in high demand on the market. This is Marx's basic explanation of money. For the genesis of money, therefore, the informational criterion (1) for the value form plays the dominant role.

Chapter Two will then show that these monetary relations also help the market participants resolve the practical difficulties of the trade of their commodities, i.e., that monetary relations also satisfy criterion (2) for value forms. This is an important supplementary result; without it, the market agents would not be motivated to establish monetary relations between their commodities.

In chapter Three, the two above criteria for the value forms reappear as “functions of money”; criterion (1) in the first section, dealing with the function of money as measure of value, and criterion (2) in the second section, the function of money as means of circulation. The third section brings something new. It shows how money turns from servant into king. The necessities of mediating commodity production and circulation have turned money into an extremely powerful tool, which can do much more than merely being a compass for production and aid in circulation.

[The Commodity Needs a Double Form]

After this overview let us now begin with the discussion of section 1.3. Marx does not begin the section with the forms of *value* but with the value forms of the *commodity*. The first paragraph 57:1 has the same point of departure as 45:2 (the very first paragraph of chapter One)—namely, the commodity. But there is a difference. Marx's earlier point of departure had been the “form of appearance” of the commodity in the market (use-value and exchange-value), since he was analyzing the practical activity of the market participants in order to make inferences about the underlying social relations. By contrast, here in section 1.3 Marx looks at the *production* of the commodity, and he uses the results of his earlier analysis of the commodity to interpret what he sees.

57:1 Commodities come into the world in the form of use-values or articles, as iron, linen, corn etc.

62:1 Waren kommen zur Welt in der Form von Gebrauchswerten oder Warenkörpern, als Eisen, Leinwand, Weizen usw.

The translation “article” is based on the following passage in the First Edition, p. [mega11/5]18:2:

“For the sake of brevity, we will call the useful thing itself or the *body of the commodity*, such as

iron, wheat, diamond, etc., a *use-value*, good, article.”

The German word that is translated here as “article” is, in a more literal translation, “body

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of the commodity,” a phrase which resonates with the birth metaphor “commodities come into the world.” The comparison of the production of a commodity with the birth of a baby is fitting. Humans can survive only in *society*, and the birth of a baby is the culmination of a complex social process. But the baby itself does not yet have the skills, such as language etc., which would enable it to sustain itself and meet its needs in the social context; it still has to grow up. Similarly one can say that the use-value, as it emerges from the private production process, still has to grow up: it does not know how to find its way to the consumer, nor how it can nourish those who produced it, or pass on its own experience to other use-values coming after it. This section explores the establishment of these connections. A physiological metaphor is perhaps even more fitting: Commodities are like babies born before some of their organs are developed. They lack the organs allowing them to express their values. Marx is about to describe how they acquire these organs.

Question 193 *The first section and third sections of chapter One of Capital (this sectioning according to the Second and later editions) both begin with the exchange relations between two individual commodities. Nevertheless the treatment is different, one might even say opposite. Explain how the treatment differs.*

This is their home-grown bodily form.

Es ist dies ihre hausbackene Naturalform.

↑ The “body” of the commodity, i.e., the commodity as a physical object, is called here its “bodily form” (my emphasis). In the first edition, [megaII/5]626:1, Marx calls it its *use-value form*. Marx calls here the physical properties of a commodity its use-value form, while we will see that the word “value form” is reserved for certain specific *social* properties of the commodity. The adjective “homegrown” indicates that the commodity does not need society to get its use-value form. In *Contribution*, 283:1/o, Marx says that as means of consumption, the commodities “do not acquire a new economic form determination.”

Question 199 *In Contribution, 270:1, Marx writes: “Although use-values serve social needs and therefore exist within a social context, they are not an expression of a social relation of production.” Is this correct? For many products, consumers need product information, instructions how to use it, assistance in setting up the product, warranty services if the product is defective, and maintenance. Are these not relations of production? 2010fa.*

↓ I just emphasized that production in every society is a *social* process. Even the “private” production of *commodities* is from the beginning social—because for the producers, the commodities are not use-values (the producers themselves don’t need the particular commodities they are producing) but values:

But they are more than use-values. They are commodities, i.e., useful objects *and* carriers of value.

Sie sind jedoch nur Waren, weil *Doppeltes*, Gebrauchsgegenstände und zugleich Wertträger.

Moore-Aveling tried to capture the overly complicated German “*nur ... weil*” construction as follows: “They are, however, commodities, only because they are something twofold, both objects of utility, and, at the same time, depositories

of value.” Unfortunately, the “only” ended up on the wrong place. A paraphrase of this translation which has the “only” at the right place would be: “However they only are commodities because they are

something twofold.” This is not only a matter of definition but can be viewed in a very practical way: they are only produced because of this other quality which they have in addition to being use-values.

↑ It is instructive to compare the above sentence with its earlier version in the First edition, [megaII/5]31:2/o:

The commodity is, since the moment it is made, something *twofold*, use-value *and* value, the product of useful labor *and* the congelation of abstract labor.

Die Ware ist von Haus aus ein *zwieschlächtig* Ding, Gebrauchswert *und* Wert, Produkt nützlicher Arbeit *und* abstrakte Arbeitsgalerte.

↑ The commodity is *use-value* since the moment it is made, because its production process has exactly the purpose to give it its use-value. It is *value* since the moment it is made, because its producer produces it with the intent to trade it away for other commodities. The producer may not be aware of it that he is *able* to trade his commodity only because it contains value, i.e., because human labor-power was used up in its production. What the producer therefore is in fact doing (without necessarily being aware of it) is: He puts his own abstract labor into the commodity in order to retrieve from the market someone else's equal abstract labor in a use-value that suits his needs. Although the commodity producer may not think of value at all during this process, his or her actions fit together with Marx's analysis that value is an invisible but real social substance which the commodities acquire already in the production process.

Question 201 *If a commodity is only produced in order to be traded away, why did Marx not say that commodities come into the world in the form of exchange-values?* [2012fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2005fa](#), [2004fa](#).

↓ Since a commodity is both use-value and value, and since its natural body is a form for its use-value, Marx says next that the commodity also needs a *value form*:

In order to appear as commodities, i.e., have the form of commodities, they need therefore a *double form*, their bodily form *and* a value form.

Sie erscheinen daher nur als Waren oder besitzen nur die Form von Waren, sofern sie *Doppelform* besitzen, Naturalform *und* Wertform.

↑ In the first edition, the corresponding sentence [\[megaII/5\]31:2/o](#) comes much later: After showing that the commodity has *two* forms, Marx comments that this may seem strange but on further reflection it is necessary because the commodity has a double character and therefore *needs* two forms. But in an effort to simplify the argument, Marx in the later editions asserts from the beginning in a “schoolmasterly” fashion that the commodity needs two forms because it has a double character.

Question 204 *Why can commodities not express their values in their own use-values? (Note that we are not asking here why the value of a commodity is not determined by its use-value. The expression of value is not the same as the determination of value.) Your answer should also identify those exceptional cases where a commodity can express its value in its own use-value.* [2008SP](#), [2007fa](#), [2005fa](#), [2003fa](#), [2002fa](#), [1997ut](#), [1997sp](#), [1997WI](#), [1996sp](#), [1995ut](#), [1995WI](#).

↓ This is the second time that Marx uses the concept of “form.” After the *use-value* form (or “bodily” form) of the commodity, he discusses now its *value* form. Both times, criterion (2) is in the foreground: just as the “use-value form” of the commodity must enable the commodity owners to take advantage of the use-values of their commodities, its “value form” must enable them to take advantage of the values of their commodities. The following quote from Theories of Surplus-Value III, [\[mecw32\]331:4/o](#), makes it explicit that the need for a double form is driven by criterion (2) for the form of value.

Because the product is not produced as an immediate object of consumption for the

Weil das Produkt nicht als unmittelbarer Gegenstand der Konsumtion für die Produzen-

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producers, but only as a *carrier of value*, as a claim, so to speak, on a certain quantity of any manifestation of social labor, all products are compelled to give themselves as *values* a form of existence distinct from their existence as use values.

ten produziert wird, sondern nur als *Träger des Werts*, sozusagen als Anweisung auf bestimmtes Quantum aller Darstellungen der gesellschaftlichen Arbeit, sind alle Produkte gezwungen, als *Werte* sich eine von ihrem Dasein als Gebrauchswerte unterschiedne Daseinsform zu geben.

↑ Commodities need value forms so that the producers can get credit for and benefit from having produced the product. Now one might object that the commodity does not need a value form separate from its use-value form—all the producer has to do in order to take advantage of the value in the commodity is to barter it away for something he or she can use. Marx discusses this possibility in chapter Two, p. 98:2/o. It works in simple circumstances, but not in a developed commodity economy in which many different products enter the market as commodities. The higher developed forms of value up until the money form, which Marx is about to derive, become more and more indispensable as the extent and complexity of commodity production evolves.

[The Only Access Route to the Value Quasi-Material]

According to criterion (2), the value form of a commodity is a socially generated property of this commodity which allows the commodity producers to take advantage of the values of their commodities. In order to see what they need for this, we have to draw on what we know about value. It was derived earlier, in 47:2, that as exchange-values commodities are reducible to a common substance. This common substance is the “value quasi-material” embedded in the commodity which Marx first mentions in 48:3. It complements the commodity’s bodily form just as the soul complements the human body. According to a draft manuscript for the second edition of *Capital* published in [megaII/6]7:2, Marx considered writing the following after the sentence with the home-grown bodily form:

Their ghost-like *value quasi-material* by contrast cannot be seen.

Ihre gespensterhafte *Werthgegenständlichkeit* ist dagegen nicht wahrnehmbar.

The need for a form of value can therefore be re-formulated as: the commodity owners must find a way to make the invisible value quasi-material in their commodities beneficial for them. The sentence about the value quasi-material did not make it into the second or later editions of *Capital*. As I already mentioned in the annotations of 48:3, Marx may have been a little cautious with his formulations so that he would not be accused of idealism. It seems that Marx is leaving a little gap in his argument here, apparently counting on it that the reader understands that, when Marx talks about the body of the commodity, he implicitly also talks about the body’s “opposite,” the value quasi-material (another formulation which did not make it into the final editions, see [megaII/6]7:1). Instead of first saying that the form of value must make the invisible value quasi-material accessible to the economic agents, Marx’s next step is already to point out an obstacle in reaching this (unstated) objective:

57:2 The quasi-material that makes up the value of a commodity differs in this respect from Dame Quickly, that one does not know “where to have it.”

62:2 Die Wertgegenständlichkeit der Ware unterscheidet sich dadurch von der Wittig Hurtig, daß man nicht weiß, wo sie zu haben ist.

↑ Dame Quickly is a character in Shakespeare’s *Henry IV*. In part 1, act 3, scene 3, Falstaff says: “Why, she’s neither fish nor flesh; a man knows not where to have her.” Dame Quickly: “Thou art an unjust man in saying so: thou or any man knows where to have me,

thou knave, thou!” This is a muted allusion to value being a causally efficacious absence, therefore one must look around for places where this absence can turn into a presence in order to exert its causal powers.

Question 206 Explain the metaphor in which Marx compares a commodity’s value quasi-material with Dame Quickly. (This is for someone who knows Shakespeare!)

The reference to Dame Quickly is a poetic description of the trials and tribulations of the commodity producer on the market. He spent a lot of time producing his commodity, but the particular labor he has put into it does not benefit him because he does not need the use-values he is producing. He produced this use-value only in order to embed abstract human labor in his commodity. This abstract human labor is his claim-check for the things he needs, which are themselves the product of abstract human labor. Therefore he somehow has to get access to the abstract human labor in his commodity, to get hold of the *value quasi-material* in the commodity he produced. But this material is elusive.

The question is therefore where this value quasi-material can be “had,” to use this Shakespearean re-formulation of the need for a form of value, i.e., how the commodity producers can get access to and therefore benefit from the value produced by their own labor. Marx uses an elimination argument based on the following two alternatives spelled out in the first edition of *Capital*, [megaII/5]30:1:

Commodities are objects. Whatever they are they must either be as objects or show in their own objective relationships.

Waren sind Sachen. Was sie sind, müssen sie sachlich sein oder in ihren eigenen sachlichen Beziehungen zeigen.

Question 207 Give an example of an object for which it is not true that it is what it is as an object.

⇓ The first alternative is therefore: can we find the value quasi-material in the commodity as an object? The answer is “no.” That so and so much abstract labor was used up in the production of the linen is not evident from its use-value:

Unlike the crude tangible material of which use-values are composed, this value quasi-material does not contain a single atom of physical matter.

Im graden Gegenteil zur sinnlich-groben Gegenständlichkeit der Warenkörper geht kein Atom Naturstoff in sie ein.

Question 208 How does Marx’s statement in 138:2/o that a commodity’s value quasi-material “does not contain a single atom of physical matter” relate to his other statement in 177:3–4 that “no chemist has ever discovered exchange-value in pearl or diamond.” Do they say the same thing or something different? 2010fa, 2005fa, 2004fa, 2003fa, 2002fa, 1998WI, 1997ut, 1997WI.

⇓ Hence it is impossible to get access to the value inside the commodity through direct physical interaction with the commodity:

However much one may tilt and turn a single commodity, one will not be able to lay one’s hands on it as a thing consisting of value.

Man mag daher eine einzelne Ware drehn und wenden, wie man will, sie bleibt unfassbar als Wertding.

⇓ Therefore only the other alternative remains: this value must manifest itself in the *relationships* which these commodities have with each other.

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If we remember, however, that commodities contain the value quasi-material only in so far as they are expressions of the same social unity, human labor, i.e., that their value quasi-material is something purely social, then we will understand that it can only manifest itself in the social relation of commodity to commodity.

Erinnern wir uns jedoch, daß die Waren nur Wertgegenständlichkeit besitzen, sofern sie Ausdrücke derselben gesellschaftlichen Einheit, menschlicher Arbeit, sind, daß ihre Wertgegenständlichkeit also rein gesellschaftlich ist, so versteht sich auch von selbst, daß sie nur im gesellschaftlichen Verhältnis von Ware zu Ware erscheinen kann.

This relationship is attached to the commodity as if it was a property of the commodity. It is called “value form” of the commodity. Examples are the relative value form of the commodity, the equivalent form, the General equivalent. These commodity forms move from reversible and impermanent to more and more specialized and exclusive, and this movement will continue in chapter Three, section 3.1.

[Digression: Social Versus Interpersonal Relations]

↑ The same word “social” occurs three times in this long sentence, but it has a slightly different meaning in its third occurrence than in the first two. I will digress here in order to clarify some basic concepts, so that we can properly understand Marx’s argument. First a word about the concept of *social relations*. When Marx speaks of social relations, he often uses the formulation that they are relations “of” the individuals, not “between” the individuals. An explanation of this can be found in the following statement in *Grundrisse*, p. 195:8, which may at first seem astonishing: Society does not consist of individuals, but expresses the sum of connections, relations, in which these individuals stand with respect to each other.

Die Gesellschaft besteht nicht aus Individuen, sondern drückt die Summe der Beziehungen, Verhältnisse aus, worin diese Individuen zueinander stehen.

Question 209 Marx writes: “Society does not consist of individuals, but expresses the sum of relations in which the individuals stand.” Why did he switch from “consist” to “express,” i.e., why did he not write “society consists of the sum of relations in which the individuals stand”? [2010fa](#), [2008fa](#), [2008SP](#), [2004fa](#).

If we use the word “society” we are mainly referring to relations and not individuals. The relations pre-exist any individuals that may slip into these relations and give them life. For instance, the roles of a mother or a teacher are very clearly circumscribed social roles which preexist any individual mother or teacher living today. Today’s mothers or teachers did not create these roles, but their behavior reproduces these roles and, often unintentionally, transforms them.

Society is therefore not seen as a group of individuals with rubber bands between them, but as a building with many different rooms inhabited by the individuals. Its architecture can be studied before one knows anything about the individuals living in these rooms.

The declaration that “society does not consist of individuals” implies that “the social” is not reducible to the conscious actions and intentions of individuals. This view deeply permeates *Capital*. The social relation “value” for instance is not explained by the goals and preferences of the commodity owners, but by the organizational structure of social production.

In capitalism, all labor counts as equal, all labor counts as the expenditure of a part of the mass of the human labor-power available to society. In every society, labor-power must

be expended to shape the use-values of the products. In capitalism, the labor process has a second effect: society remembers how much labor-power was spent in the production of the use-values because this use-value is the producer's claim on the products of the labors of the others. The labor-power, therefore, does not disappear when it is used up but it is accumulated in the value of the product. This accumulated past labor-power is the "value quasi-material" Marx is talking about.

Now we know that Marx means when he says that the value quasi-material is something social. Now what does he mean with the phrase that it can only manifest itself in the relationship of commodity to commodity?

The error of trying to reduce society to individuals is made so often because nothing happens in society without some individual carrying it out. The social structure grows, so-to-say, behind the backs of the individuals, and is not controlled by the individuals, nevertheless their individual activity is the motor maintaining the social structure. Example: if a commodity has value, this causes people to act in certain ways with respect to it, and on the other hand, only if this activity occurs can the value of a commodity have real effects. The commodity owner can therefore benefit from the value in his or her commodity only through the value-sustaining behavior of other individuals—there is no way to benefit from the value just in a direct physical interaction between the commodity-owner and the commodity itself. Any *form* of value must therefore involve interpersonal activity, i.e., activity involving other commodity owners. And since commodity owners are only the "character masks" acting out the relations of the commodities themselves, this interpersonal activity must be kindled by a relationship from commodity to commodity. Unfortunately, Marx's terminology does not have a separate word for "interpersonal" as opposed to "social" relations but used the same word "social relations" for them. But the formulation "social relation *of commodity to commodity*" makes it clear that Marx means here a relationship in which the commodities come in direct contact with each other, i.e., an "interpersonal" relationship between commodities.

Question 211 Find other passages of Marx where he is explicitly speaking of interpersonal or inter-commodity instead of structural social relations.

To sum up, this long digression tried to show that the passage 57:2 can be paraphrased as: Value is a social relation, therefore we have to look at the direct interactions between commodities if we want to know how individuals can benefit from the values in their commodities. The second form, which the commodity needs in addition to its use-value form, is therefore a social relation between commodities as values in which the commodities express their values. I.e., this second form of the commodity is the value form of the commodity.

Question 215 The title of Section 3 is "Form of value." Why does Marx then start his discussion with the form of the commodity?

Now let's continue reading Marx's text.

[Two Brief Digressions by Marx]

Before doing what he said he had to do (namely, investigate the direct social interactions between commodities in order to find the channels through which commodity owners exchange information and benefit from their commodities), Marx himself makes two brief digressions. ↓ In his first digression, he remarks that a look at the direct interactions between commodities was also the starting point for his earlier derivation of what value is.

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The exchange-value or exchange relation of commodities was in fact the starting point in our search for the commodities' value hidden inside this exchange relation.

↓ Already in 46:3/o, Marx comes to the conclusion that the exchange relations of the commodities are the "form of appearance" (*Erscheinungsform*) of something which he later calls "value." And in a brief commentary about his starting point in the *Notes to Wagner*, p. [mecw24]544:6/o, Marx says that he initially analyzes the commodity in the "form in which it appears."

We must now come back to this form of appearance of value.

↑ We are therefore arguing in a circle. We started with the form of appearance of value, then we inferred from this what value is, and now we have arrived back at where we started. But this roundtrip was not a waste of time; it allows us now to ask questions which would otherwise have been out of reach, for instance, to what extent these surface forms satisfy criteria (1) and (2) defined above. These questions will also propel us from the simplest form of value to the more developed forms of value. The circular course of the investigation—from the phenomena to the underlying mechanisms and then back to a fuller understanding of the phenomena—is not an accident. In and in the *Introduction to Grundrisse*, [mecw28] 37:2–38:1, Marx describes it as a necessary procedure in social sciences.

↓ Marx's second digression surveys what must be accomplished:

57:3/o Everyone knows, if he knows nothing else, that commodities have a value form common to them all which presents a marked contrast to the varied bodily forms of their use-values—namely, their money form.

Wir gingen in der Tat vom Tauschwert oder Austauschverhältnis der Waren aus, um ihrem darin versteckten Wert auf die Spur zu kommen.

Wir müssen jetzt zu dieser Erscheinungsform des Werts zurückkommen.

62:3 Jedermann weiß, wenn er auch sonst nichts weiß, daß die Waren eine mit den bunten Naturalformen ihrer Gebrauchswerte höchst frappant kontrastierende, gemeinsame Wertform besitzen—die Geldform.

↑ The "money form" of a commodity is a concept which belongs into chapter Three, see 118:2/o. When Marx uses this word already here, he means the fact that all commodities can be turned into money, and indeed *must* be turned into money if their producers are to benefit from producing them. This form change goes from a form in which use-value is actual and exchange-value only notional to a form in which exchange-value is actual and use-value notional. I.e., it is a form change in which the commodity *expresses* its exchange-value.

Marx will show that in the paradigm of commodity forms, the sale of a commodity is to be considered not as an exchange of the commodity one owns with a new commodity, but only a change in the form of the commodity one owns. The money the linen weaver receives for her linen is therefore the money form of her linen, and the money the tailor receives for his coat is the money form of the coat. The money form is therefore, as Marx says, the *joint* value form of both linen and coat.

↓ The money form itself is so striking that it has attracted a lot of attention, but nobody ever tried to explain the *genesis* of the money form.

Here however, a task is set to us, which bourgeois economics never even tried to accomplish, namely, to trace the genesis of this money form,

Hier gilt es jedoch zu leisten, was von der bürgerlichen Ökonomie nicht einmal versucht ward, nämlich die Genesis dieser Geldform nachzuweisen,

By "genesis of the money form" Marx means the evolution of money out of the simplest relations between commodities:

i.e., to pursue the development of the value | also die Entwicklung des im Wertverhältnis

expression contained in the value relation of the commodities from its simplest, almost unnoticeable shape to the blinding money form.

der Waren enthaltenen Wertausdrucks von seiner einfachsten unscheinbarsten Gestalt bis zur blendenden Geldform zu verfolgen.

Question 217 *Why did bourgeois economics never attempt to derive the genesis of the money form?* 2007SP, 2005fa, 2004fa, 2003fa, 2002fa.

↑ The boast that nobody did this before is Marx's opener for a quick summary how he is going to proceed in his genetic approach to the value form. He begins with the value interactions of the commodities, i.e., the interactions which commodities have with each other on the market due to the fact that they contain value. In these value interactions he is looking for *expressions* of value, i.e., relations which, since they flow from the values in the commodities, transmit information about these values. There is a hierarchy of such expressions from simple to elaborate. The principle which drives these expressions forward is: how well suited is the information contained in these relations for governing the decisions of the producers of the commodities, i.e., this is criterion (1) clothed in the question how *appropriate* this form is.

When this is done, the riddle of money will disappear at the same time.

Damit verschwindet zugleich das Geldrätsel.

I translated *Geldrätsel* with "riddle" instead of "mystery." Mystery, *Geheimnis*, is an

ontological category: things are intrinsically *geheimnisvoll*. A riddle, on the other hand, is

epistemological: someone does not know something, is perplexed by it, tries to resolve it.

↑ The "riddle of money" is the riddle why money can buy everything. It is the flip side of what Marx calls here the money form of the commodity. According to the outline of Marx's research trajectory, one has to start with the commodity, not with money, in order to explain the riddle of money.

Exam Question 218 *Marx announces at the beginning of section 3 of chapter One that he is going to answer questions which were never even asked by bourgeois economists. Formulate these questions in your own words.* 2002fa, 2001fa.

Question 220 *What does Marx understand to be the riddle of money? And how does he solve this riddle in section 3?* 2010fa, 2007fa, 2005fa, 1997ut, 1997sp, 1997WI, 1996ut, 1996sp, 1995ut, 1995WI.

[From Commodity Interactions to the Form of Value]

Now Marx begins his analysis. Just before his two digressions, in 57:2, he said: since commodity value is something social, it can appear, manifest itself, only in the social interactions which commodities have with each other. Now what interactions do commodities have with each other as values? In the first edition, [megaII/5]38:1, reprinted *earlier* in the present Annotations, Marx wrote: their social interaction as commodities is simply that they count for each other as quantitatively different but qualitatively equal blobs of congealed abstract human labor. This is already quite simple, yet Marx looks now for the *simplest* such interaction:

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58:1 Obviously, the simplest value relation is that of one commodity to a single commodity of a different kind, whatever this other commodity may be.

62:4 Das einfachste Wertverhältnis ist offenbar das Wertverhältnis einer Ware zu einer einzigen verschiedenartigen Ware, gleichgültig welcher.

↑ This is the simplest value interaction because both commodities are ordinary commodities. Neither commodity is gold or some other use-value which predisposes it to function as money.

Question 221 Why doesn't Marx say that the simplest value relation is that between commodity and money? [2010fa](#), [2008fa](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#).

Question 222 In a capitalist economy very few commodities are directly exchanged against each other. Almost all transactions involve money and a commodity. Why does Marx start his investigation with the exchange relation between two commodities, instead with the much more common relation between money and a commodity? [2008fa](#), [2008SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#).

The value relation between two commodities yields therefore the simplest expression of the value of a commodity.

Das Wertverhältnis zweier Waren liefert daher den einfachsten Wertausdruck für eine Ware.

Wertausdruck für eine Ware = Ausdruck für den Wert einer Ware = Ausdruck des Werts einer Ware.

↑ An “expression” of value is any relation or behavior that exists because commodities have value, and that emits information about this value. A *value form* is a property of a commodity allowing it to relate to other commodities as values. In [\[megaII/5\]32:1/o](#) in the First edition, value forms are introduced as the roles which commodities play in an expression of value.

The sentence above announces the subject next investigated by Marx. Marx will first show that the simplest value relation “yields” or contains an expression of value, and then in a long and abstract development he will analyze the roles of the two commodities in this expression of value. In the background are criteria (1) and (2): Marx will check to what extent these forms of value meet or do not meet the above criteria, and failure to fully meet the first of these two criteria will also lead to more developed forms.

1.3.A. The Simple, Isolated, or Accidental Form of Value

Marx uses the attributes “*einfach*,” “*einzel*,” and “*zufällig*.” He does not use “elementary.” Since there

is a conflict with the use of “elementary” in the very first paragraph of *Capital*, this word is

not used in this translation either.

This subsection should better be called the simple *expression* of value, because

- it is only the embryo of a form of value
- Marx has not yet shown that it is a form of value, he has not even shown at this point that it is an expression of value.

1.3. Form of Value

Assume 20 yards of linen and 1 coat have the same value, i.e., (a) both are representations of abstract human labor, and (b) the socially necessary labor-time to produce them is equal. Points (a) and (b) describe a social relation between them. How do they interact with each other based on this relation? The simplest interaction on this basis is that one points to the other as its equivalent. (What Marx calls the simplest value relation I am calling here the simplest value interaction.) If you think that you have never seen a commodity pointing to another commodity as its equivalent, you are mistaken. Under a monetary system with commodity money (gold), every price tag is a commodity pointing to the commodity gold as its equivalent. And in a barter society, whenever a commodity producer is offering on the market to trade his or her commodity for some other commodity, here also the commodity offered points to the commodity desired as its equivalent. Marx's notation for this interaction is:

58:2 x commodity $A = y$ commodity B or: x commodity A is worth y commodity B. (20 yards of linen = 1 coat or: 20 yards of linen are worth 1 coat.)	63:1 x Ware $A = y$ Ware B oder: x Ware A ist y Ware B wert. (20 Ellen Leinwand = 1 Rock oder: 20 Ellen Leinwand sind 1 Rock wert.)
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In Marx's original text, both linen and coat are made by men, not women, but Marx playfully uses the fact that the German language gives (often rather arbitrary) male

and female genders to things. Linen is female and coat is male. In order to replicate this colorful stylistic play in the translation, I will pretend here that the coat was

made by a man and the linen by a woman (although usually weaving was men's work; spinning was women's work).

Question 223 Why is the relationship “20 yards of linen are worth 1 coat” called the Simple form of value, the Isolated form of value, the Accidental form of value?

Since these Annotations are written for a general audience, it is necessary here to address a basic misunderstanding sometimes happening to careless readers of the text. The expression of value, which Marx discusses here, has no relation to the *use-values* involved. Unfortunately, Marx chose an example in which there *is* a relationship between the use-values: linen can be used to make coats (although Marx himself was thinking of woolen coats, see 64:1). This can lead to misunderstandings, such as, that the coat represents the value of the linen because it shows what kind of use-values can be made out of linen. Or, in the reverse relationship, the linen represents the value of the coat, since it takes this many yards of linen to make a coat. A careful reading of the text will show without doubt that *this is totally wrong!* The question whether one commodity is a raw material of which the other commodity can be made, or any other relationship of the *use-values*, is irrelevant for their relation as values. It would have been better had Marx stayed with the exchange relationship between wheat and iron which he used earlier, to make it clear that the value relation is *not* a relationship between the use-values. The linen weaver happens to need a coat, and at the market exchange rate which requires to give 20 yards of linen in exchange for every coat, she is willing to give 20 yards of linen in exchange for exactly one coat. The *use-values* of linen and coat need not be related in any way to each other for such an exchange to take place.

Why does Marx call this a “form” or an “expression” of the value of the linen? First of all, note that the Simple, Expanded, and General forms of value discussed in section 1.3 are not different *kinds* of value but rather different ways of expressing the substance of all commodity-value, i.e., congealed abstract labor, on the surface of the economy. In order to see how the statement “20 yards of linen are worth 1 coat” is an expression of value, note that “20 yards of linen are worth 1 coat” is a different and in fact a more elementary statement

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than “20 yards of linen are worth as much as 1 coat.” The latter statement refers to the value of both coat and linen as a third thing different from both coat and linen. This is the point of view of the General equivalent, see 77:1. The statement “20 yards of linen are worth 1 coat,” by contrast, can be considered a price tag denominated in coats (instead of dollars). When we say “20 yards of linen are worth 100 dollars” we do not mean that the value of 100 dollars is equal to the *value* of 20 yards of linen, but we mean that 100 dollars *are* the value of 20 yards of linen. This is how the statement “20 yards of linen are worth 1 coat” should be read: it does not say that the *value* of the coat is equal to the value of the linen, but that the *coat itself* represents the value of the linen. This is not only a representation of the value of the *linen*, but in a different way also expresses the value of the coat. If the linen points to the coat as its equivalent, i.e., if the linen says about the coat “this is my value,” then it turns the coat into an incarnation of value in general.

Now we know how this equation is to be read, but this does not yet tell us how this equation is an expression of *value*. Things can be expressions of many other things. Marx is talking about *social* expressions. The reader should suspend his or her disbelief, Marx will show in due course how this relationship is an expression of value.

Marx is going to flesh all this out in the next four subsections. The subsection titled “The Two Poles of the Value Expression . . .” gives a detailed description what an interaction between two commodities looks like in which one of them points to the other as its equivalent. One of the commodities has its arm stretched out and points with its finger . . . just kidding. Although this act of pointing is an expression of value, the first subsection does not pay attention to what this expression says about value. If 20 yards of linen point to 1 coat as their equal, then Marx’s terminology for the different roles of the two participants in this interaction is that the linen is in the “relative form of value” and the coat in the “equivalent form of value.” The subsequent subsections “The Relative Form of Value” and “The Equivalent Form of Value” decipher what the relative and equivalent forms of value say about value. The concluding subsection “The Simple Form of Value Considered as a Whole” discusses the general relationship between value and exchange-value and shows that the exchange relationship between two commodities already contains the germ of money.

The Two Poles of the Value Expression: Relative Form of Value and Equivalent Form

58:3 The secret of all forms of value lies hidden in this Simple form of value.

63:2 Das Geheimnis aller Wertform steckt in dieser einfachen Wertform.

In this translation, Simple, Expanded, etc., are capitalized, but relative and equivalent are not.

↑ This Simple form contains the “secret” which unlocks the mystery of all forms of value exactly because it is simple, i.e., not yet developed. This lack of development allows the researcher to see connections that will be smoothed over and therefore are less visible in the more developed forms of value.

Its analysis, therefore, presents the key difficulty.

Ihre Analyse bietet daher die eigentliche Schwierigkeit.

↑ In the preface to the First edition, p. 7:3/o, Marx says that chapter One is the most difficult part of *Capital*. Despite his attempts between the first and second edition to make the analysis of the form of value more accessible, the analysis of the form of value is still probably the most difficult part of chapter One.

Question 225 Does Marx contradict himself when he says the Simple form of value is difficult to analyze? 2003fa, 1997WI, 1996ut, 1995ut, 1995WI.

The first thing that should be said here is so obvious that Marx didn't think it was necessary to write it down. Linen can only then point to the coat as its equivalent if the value of the linen is equal to the value of the coat. This is a symmetric relation between linen and coat. But the interaction based on this symmetric relation is asymmetric. $\Downarrow$ Marx points out this asymmetry without explicitly saying that this is an asymmetric interaction based on a symmetric relation. He probably thought the reader would immediately recognize that it would not make sense to even point out the asymmetry of the interaction were it not for its symmetric underpinnings.

58:4 The two commodities of different kinds *A* and *B* (here linen and coat) obviously play two different roles.

63:3 Es spielen hier zwei verschiedenartige Waren *A* und *B*, in unsrem Beispiel Leinwand und Rock, offenbar zwei verschiedene Rollen.

One might wonder whether Marx goes in a circle because first he formulates the value interaction in an asymmetric way, and then he makes a big deal about it that it is asymmetric. These doubts can be resolved if we illustrate Marx's abstract description of the value interaction by going over to one of the more concrete examples, and consider it as a description of the situation and thought processes of the linen weaver offering to trade 20 yards of linen for 1 coat. This makes things easier to understand although it is logically not as clean as Marx's more abstract treatment, since it already interprets the value relations as exchange relations on the surface of the economy, while Marx is still in the process of deriving how the relations in the production process project themselves onto the surface.

Going this route, asymmetry can be established as follows: If the social exchange proportion between linen and coat is "20 yards of linen for 1 coat," then tailors and linen weavers must be on the market who are willing to make this exchange. This exchange is not a co-operative act in which both traders work together towards a common goal. On the contrary, the two traders have their separate reason for this exchange, which are often opposite to each other. In order to understand the individual activity which sustains this social exchange relation, one must therefore look at the point of view of each of the traders separately. By putting the linen on the left side of the equation, Marx has chosen the *linen weaver's* point of view. If the linen weaver goes to the market and announces "20 yards of linen are worth 1 coat" (or puts up a sign next to her piece of linen to that effect), she expresses her willingness to exchange 20 yards of linen for 1 coat.

Exam Question 226 Why is the Simple value expression asymmetric between coat and linen? 2005fa, 2004fa, 2002fa, 2001fa.

$\Downarrow$ I will try to show that also the other things Marx says about the value interaction make sense if we read them as a description of the linen weaver's situation and thought processes when she offers her linen for exchange on the market.

The linen expresses its value in the coat; the coat serves as the material in which that value is expressed.

Die Leinwand drückt ihren Wert aus im Rock, der Rock dient zum Material dieses Wertausdrucks.

$\Uparrow$ We can see that this is an expression if we put ourselves into the shoes of the linen weaver. Her willingness to accept 1 coat in exchange for 20 yards of linen is an expression of the value of the linen in a sense related to the "revealed preferences" argument in modern economics: the linen weaver knows how much effort and expense was necessary to produce

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the linen, and she needs a coat. She also knows the market exchange rate between linen and coats, i.e., she knows that for each coat she has to give 20 yards of linen in exchange. Given this information she is willing to use 20 yards of her linen for getting coats (which will give her exactly one coat). The amount of linen she is willing to give for a coat is a sign for how badly she needs a coat. Marginal utility, also Adam Smith's disutility of labor footnote. The weaver makes her decision according to how badly she needs coats as compared with other things, but prices are not determined by how badly people need things. The weaver is doing something else here. She is equating coats to linen. She does not *mean* to equate them, for her coats are more preferable than the linen, but this equality is what is picked up by society. And by treating commodities equally she is treating them as values. The weaver's offer and exchange is therefore a social expression of value, not because the weaver means it this way, but because the all-sided self-interested activity by the individuals on the market generates an image on the surface of the social bonds which tie these individuals together in their social proction process.

Question 231 *The linen weaver's willingness to trade her linen for a coat cannot be an expression of the value of the linen, due to the principle that "bygones are bygones." The labor is a thing of the past, it no longer concerns the weaver; all that concerns her is what exists in the present, which is the linen. The decision to trade the linen must therefore be based on the linen itself and not on the labor used in the past to produce that linen. If the linen weaver trades coat for linen, she therefore reveals her preference of the use-value of the coat over that of the linen, and does not express the value of the linen. Is this a correct argument, and if not, where is the error?* 2010fa.

↓ The roles of the commodities are not only different but also opposite:

The first commodity plays an active role, the second a passive one.	Die erste Ware spielt eine aktive, die zweite eine passive Rolle.
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↑ If we put ourselves in the shoes of the linen weaver, the active character of the linen is no longer a simple implication of the grammar of the sentence. The linen weaver just produced 20 yards of linen—although she does not need linen. Instead, she has many other needs. Her effort and expenses producing the linen will be wasted and her needs will remain unmet if she is unable to exchange the linen for the things she needs. Therefore she will not rest until the linen is off her shelf. This urgency gives the linen its active character. The weaver probably does not know that from the point of view of social relations, the coat is a sign for the value of the linen. For her personally, by contrast, the linen is a sign for the use-value of the coat. Nevertheless she also experiences the linen as active and the coat as passive.

Question 232 *In the Simple or Accidental form of value, which commodity plays an active role, and which a passive role? Explain what it means in this situation to be active or passive.* 2009fa, 2007fa, 2005fa, 2003fa, 1999SP, 1998WI, 1997ut, 1997WI, 1996ut, 1996sp, 1995ut.

↓ Therefore also the values inside these two commodities—whose equality made the interaction possible—play two different roles.

The value of the first commodity is represented as relative value, in other words the commodity is in the relative form of value. The second commodity functions as equiv-	Der Wert der ersten Ware ist als relativer Wert dargestellt, oder sie befindet sich in relativer Wertform. Die zweite Ware funktioniert als Äquivalent oder befindet sich in
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alent, in other words it is in the equivalent form. | Äquivalentform.

Question 233 First Marx says that the equivalent form is passive, and then he uses the phrase “functions as equivalent” as synonymous to “being in equivalent form.” Why does he use such an active word as “function” for a role which he just emphasized is passive?

If Marx said earlier the commodity needs a double form, a use-value form and a value form, then one might think we have now too much of a good thing, namely, a use-value form and two value forms. But later we will see that the coat does not have to assume a special form for its role as equivalent; it can serve as equivalent in its natural form. Therefore the relative form is the *only* specific value-form of the commodity.

This terminology indicates that the values of both linen and coat are expressed. Being in the equivalent form is also a form of value, i.e., the coat can only play the role of equivalent in the linen weaver’s offer because it is value as well. Why? Because the linen weaver would not be able to make her offer on the market if tailors would not also come to the market with coats, driven by the need to turn the labor in their coats into something useful for them.

Exam Question 235 Explain the different parts played by coat and linen in the equation “20 yards of linen = 1 coat.” 2010fa, 2004fa, 2001fa, 2000fa, 1998WI, 1997ut, 1997sp, 1997WI, 1996ut, 1996sp, 1995ut, 1995WI.

The paragraph which we just read explained the *differences* between the roles played by linen and coat; the next paragraph goes one step further and stresses the *polar opposition* between the two roles:

58:5/o The relative form of value and the equivalent form are two moments which belong together, mutually condition each other, and cannot be separated; but, at the same time, they are mutually exclusive or opposite extremes. They are the two poles of the same expression of value, distributed over the different commodities which this expression of value brings in relation with each other.

63:4 Relative Wertform und Äquivalentform sind zueinander gehörige, sich wechselseitig bedingende, unzertrennliche Momente, aber zugleich einander ausschließende oder entgegengesetzte Extreme, d.h. Pole desselben Wertausdrucks; sie verteilen sich stets auf die verschiedenen Waren, die der Wertausdruck aufeinander bezieht.

Marx claims that linen and coat not only play different roles in this interaction but that they have a stronger asymmetric relationship which Marx calls here “opposition” (sometimes also translated with “antagonism”). In order to back this claim Marx makes two specific observations: (a) Not only are the roles of the two commodities different, but the commodities which assume these roles must also have different use-values. (b) The interaction is of necessity one-sided, i.e., in the interaction in which the linen points to the coat as its equivalent, the coat does not simultaneously point to the linen as its equivalent. ↓ Marx first argues in support of point (a), that the same use-value cannot occupy both poles of the Simple value expression:

I cannot, for example, express the value of linen in linen.

Ich kann z.B. den Wert der Leinwand nicht in Leinwand ausdrücken.

↓ This, too can be translated into the linen weaver’s thought processes. If she were willing to exchange linen against linen (perhaps because she is exchanging linen of one color against identical linen of a different color, or linen today against linen tomorrow), then the criterion

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for such an exchange would be the equivalence of the use-values of the linen—because the linen weaver is able to produce the other kind of linen herself. Such an exchange would not say anything about the *value* of the linen, i.e., about the relationship between the linen weaver and the producers of the commodities the linen weaver needs for her own consumption. ↓ Marx’s own argument is an abstract condensation of the interaction just described: the use-values must be different because if they are equal, the closer relation (equality of use-values) trumps the more distant relation (equality of values).

20 yards of linen = 20 yards of linen is not an expression of value. Instead, this equation says that 20 yards of linen are nothing but 20 yards of linen, a definite quantity of the useful object “linen.”

20 Ellen Leinwand = 20 Ellen Leinwand ist kein Wertausdruck. Die Gleichung sagt vielmehr umgekehrt: 20 Ellen Leinwand sind nichts anderes als 20 Ellen Leinwand, ein bestimmtes Quantum des Gebrauchsgegenstandes Leinwand.

↑ Of course a different but in all respects equal piece of linen has the same value as the original one. But pointing to this different piece does not say any more about the value of the original linen than pointing to the original linen itself. ↓ From this Marx draws an important implication: commodities can only then interact with each other *as values* if they have *different* use-values.

Question 237 Why doesn’t Marx simply say: one cannot express the value of linen in linen, because nobody would exchange 20 yards of linen for 20 yards of linen?

The value of the linen can therefore only be expressed relatively, i.e. in another commodity. The relative form of the value of linen therefore presupposes that some other commodity confronts it in the equivalent form.

Der Wert der Leinwand kann also nur relativ ausgedrückt werden, d.h. in anderer Ware. Die relative Wertform der Leinwand unterstellt daher, daß irgendeine andre Ware sich ihr gegenüber in der Äquivalentform befindet.

↑ In the second sentence Marx makes a perspectival switch, emphasizing that there must be a second commodity. Right now this second commodity involved can be any use-value (*irgendeine andre Ware*) but it must be a *different* use-value than the first. In the later development we will see that this second commodity comes to play a special role, it will become the money commodity. This concludes Marx’s first point, which I above called point (a).

↓ (b) Now assume condition (a) is satisfied, i.e., two different use-values (linen and coat) occupy the two poles of the Simple form of value. Even then, the interaction could in theory still be symmetric, if the interaction between linen and coat in which the linen points to the coat as its equivalent, is at the same time an interaction in which the coat points to the linen as its equivalent. Marx denies that this is the case.

On the other hand, this other commodity, which figures as the equivalent, cannot simultaneously be in the relative form of value.

Andrerseits, diese andre Ware, die als Äquivalent figuriert, kann sich nicht gleichzeitig in relativer Wertform befinden.

↑ There is no symmetry between the two poles, the two different commodities indeed play different parts in their interaction. ↓ Marx explains this as follows:

It is not the latter commodity whose value is expressed. The latter commodity only provides the material in which the value of the first commodity is expressed.

Nicht sie drückt ihren Wert aus. Sie liefert nur dem Wertausdruck andrer Ware das Material.

↑ Again, Marx simply gives a detailed explanation of what the interaction looks like in which the linen points to the coat as its equivalent. If we put ourselves into the shoes of the linen weaver, this one-sidedness of the interaction is at the heart of her dilemma. She would love to turn her linen into a coat, but she cannot do this because she produces linen, not coats. Therefore she offers to turn the tailor's coat into linen, in the hope the tailor will take her up on this and by this also turn her linen into a coat. But she is very aware that the fact that she thinks 20 yards of linen are worth 1 coat does not mean that the tailor will think 1 coat is worth 20 yards of linen.

↓ It follows from asymmetry that the interaction which we just described is not the only possible interaction in which linen and coat interact as values. Since the interaction which we discussed is not symmetric in itself, there is also a second interaction, the mirror-image of the first, in which the coat points to the linen as its equivalent.

59:1 Of course, the expression 20 yards of linen = 1 coat, or 20 yards of linen are worth 1 coat, also implies its reverse: 1 coat = 20 yards of linen, or 1 coat is worth 20 yards of linen.

63:5 Allerdings schließt der Ausdruck: 20 Ellen Leinwand = 1 Rock oder 20 Ellen Leinwand sind 1 Rock wert, auch die Rückbeziehungen ein: 1 Rock = 20 Ellen Leinwand oder 1 Rock ist 20 Ellen Leinwand wert.

↑ The linen weaver can exchange linen for coat only if the tailor agrees to this exchange—and the tailor's agreement indicates that for him, the linen is an equivalent for his coat. ↓ But if the coat is in the relative form of value in the *tailor's* expression of value that does not mean it is in the relative form of value in the *linen weaver's* expression of value:

But in this case I must reverse the equation, in order to express the value of the coat relatively; and, if I do that, the linen becomes the equivalent instead of the coat.

Aber so muß ich doch die Gleichung umkehren, um den Wert des Rocks relativ auszudrücken, und sobald ich das tue, wird die Leinwand Äquivalent statt des Rockes.

In the First edition, [megaII/5]628:2, Marx describes how the linen weaver's value expression interacts with the tailor's value expression:

Denken wir uns Tauschhandel zwischen Leinwandproducent A und Rockproducent B. Bevor sie Handels einig werden, sagt A: 20 Ellen Leinwand sind 2 Röcke werth (20 Ellen Leinwand = 2 Röcke), B dagegen: 1 Rock ist 22 Ellen Leinwand werth (1 Rock = 22 Ellen Leinwand). Endlich, nachdem sie lang gemarktet, stimmen sie überein. A sagt: 20 Ellen Leinwand sind 1 Rock werth, und B sagt: 1 Rock ist 20 Ellen Leinwand werth.

Imagine a barter transaction between linen weaver A and coat producer B. Before they agree on a trade, A says: 20 yards of linen are worth 2 coats (20 yards of linen = 2 coats), whereas B says: 1 coat is 22 yards of linen worth (1 coat = 22 yards of linen). Finally, after bargaining for a long time, they come to agreement. A says: 20 yards of linen are worth 1 coat, and B says: 1 coat is worth 20 yards of linen.

This shows that Marx had indeed the thought processes of linen weaver and tailor in mind. The later editions suppressed any references to them presumably because Marx considered them as an extraneous imagination and illustration which was not necessary in the abstract development he aspired to. This is not the only occasion where Marx is hiding or discarding the crutches which might make it easier to follow his thinking, presumably because he did not want to promote "picture-thinking" (*Vorstellungen*).

↓ This concludes Marx's proof of what we called assertion (b):

The same commodity cannot, therefore, si- | Dieselbe Ware kann also in demselben

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multaneously appear in both forms in the same expression of value. These forms rather exclude each other as polar opposites.

Wertausdruck nicht gleichzeitig in beiden Formen auftreten. Diese schließen sich vielmehr polarisch aus.

↓ The possible reversal between linen and coat also has a different implication: every commodity that can be in the relative form of value can also be in the equivalent form of value.

59:2 Whether a commodity is in the relative form or in its opposite, the equivalent form, exclusively depends on the position it holds in the expression of value. That is, it depends on whether it is the commodity whose value is being expressed, or the commodity in which value is being expressed.

64:1 Ob eine Ware sich nun in relativer Wertform befindet oder in der entgegengesetzten Äquivalentform, hängt ausschließlich ab von ihrer jedesmaligen Stelle im Wertausdruck, d.h. davon, ob sie die Ware ist, deren Wert, oder aber die Ware, worin Wert ausgedrückt wird.

↑ Marx writes “exclusively” because the question whether a commodity is in the relative or equivalent form does not depend on anything *other* than its position in the expression of value. Most importantly, the equivalent form is not tied to any particular *use-values*. The Simple equivalent is still a general form of value in the sense that a commodity does not have to be gold in order to serve as equivalent. Any commodity can be equivalent, just as any commodity can be in the relative form. The value forms discussed here are transient forms. Just as an individual in capitalist society is sometimes buyer and sometimes seller, so a commodity is sometimes in the relative and sometimes in the equivalent form. Other relations are not transient: a given commodity is not sometimes money and sometimes an ordinary commodity, and the same individual is usually not sometimes a laborer and sometimes a capitalist.

This arbitrariness of the commodity in the equivalent form is relevant for the linen weaver. The linen weaver not only needs coats but also many other goods, and whenever she exchanges her linen for these other goods she expresses the value of her linen in these other goods. **FIXME** It is too early to say this here.

The Relative Form of Value

FIXME The examples I am about to give here are beside the point. The value expression is a *social* expression which is not necessarily *meant* by any individuals. Now the older, wrong text: Social relations can be and often are *expressions* of something. If Jane marries John she enters a specific social relationship with him. By entering this relation she at the same time expresses her love for John, and Jane’s love indirectly also reflects on John, it is an expression of his qualities as a husband. Many other examples can be given: whom I date is an expression of popularity and status, salary is often seen as expression of self-worth, etc.

Question 240 Give other examples where a relationship is at the same time an expression about one of the parties in that relationship.

In the same way, the social interactions of commodities as values are expressions of the values of these commodities. Marx will show now in great detail how this is the case.

The interaction between two commodities in which one points to the other as its equivalent has from the beginning been called by Marx an *expression* of value, in two ways:

- The formula “20 yards of linen is worth 1 coat” is a verbal expression, it expresses the value of the linen in the coat.

- In our illustration of Marx's discussion as the linen weaver's willingness to exchange her 20 yards of linen for 1 coat, it is not only a verbal expression, but the linen weaver is ready to act on it, by accepting the coat in exchange for her linen.

Nevertheless this is still a very private expression, which originates in the mind of the linen weaver, and which she has to communicate verbally—by the phrase “20 yards of linen is worth 1 coat” or by attaching a price tag to her linen—if she wants to exchange her linen. Next Marx will show how the actions of weaver and tailor generate an independent *representation* of the value not only of the linen but, in its more developed forms, of all value, which can be seen and acted upon by all producers and consumers of commodities. In a further step, Marx will pay special attention to the private *producers* and see how they use the information contained in this representation.

One might say that until now the Simple form of value was discussed from the inside, i.e., from the point of view of the linen weaver herself. From now on it will be discussed from the outside, i.e., from the point of view of the market participants who observe the exchanges without knowing the thought processes of those who make these exchanges. In this new discussion, Marx first looks at relative and equivalent forms separately, and then at the relationship as a whole. The relative form is discussed first because it is active.

Content of the Relative Form of Value The derivation of the laws of commodity production and circulation in chapter One is made on the basis of simple commodity production (another instance of abstraction). The individuals meeting on the market are also those who produce and consume. Each knows exactly what is involved in producing that commodity which he or she brings to market, and the choices he or she makes on the market are informed by this knowledge. In the subsection which we are about to read, Marx is asking how the linen weaver, by agreeing to trade her 20 yards of linen for 1 coat, informs others about the part of the deep structure of the economy she is familiar with, i.e., the production of linen. This is what Marx calls the “content” of the relative form of value. Afterwards, starting with 60:3, Marx will broaden his field of vision and look at the joint impact of the exchange decisions of many individual traders. But he first looks at two traders only.

[Why One Has to Begin with Quality and Not with Quantity] Marx is about to analyze the information transmitted by the weaver's offer to exchange linen for coat.

59:3/o In order to discover how the Simple expression of the value of a commodity is embedded in the value relation between two commodities, we must, for now, look at the value relation quite independently of its quantitative aspect.

64:2–3 Um herauszufinden, wie der einfache Wertausdruck einer Ware im Wertverhältnis zweier Waren steckt, muß man letzteres zunächst ganz unabhängig von seiner quantitativen Seite betrachten.

The Moore-Aveling translation is: “In order to discover how the elementary expression of the value of a commodity lies hidden in the value relation of two commodities.” Fowkes is very

similar: “In order to find out how the simple expression of the value of a commodity lies hidden in the value relation between two commodities.” The formulation “lies hidden” is wrong. An

expression cannot be hidden. It may need deciphering, but there is a difference between something that is clearly visible on the surface but is not understood, and something that is hidden.

Question 241 Five times in Section 1.3 Marx uses the formulation that the value relation between two commodities “yields” or “contains” an expression of value, or that an expression of value “is embedded” in the value relation. Copy one of the five sentences where

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he says this (with page reference), and explain in your own words what he means by this formulation.

The word “expression of value” in the above sentence and in the whole development that follows now refers to a *public* expression of value, i.e., information about the value of the linen which others receive from the market activity of the linen weaver.

This is a little confusing because in the just preceding four paragraphs, the same word “expression of value” was used for the *private* expression of value, i.e., for the thoughts inside the linen weaver’s head which are not visible to others. But these thoughts lead to actions which do transmit information to others. These actions, and their competitive responses by other market participants, will be discussed here.

One might think that the most important piece of information transmitted by the linen weaver’s willingness to accept 1 coat in exchange for her 20 yards of linen is the quantity of linen which she offers in exchange for the coat. Marx’s above passage implies that this is a fallacy. This preoccupation with the quantities *prevents* us from recognizing how the value relation between two commodities is the expression of the values of the commodities involved. ↓ But Marx acknowledges that his critique of common sense is probably a surprise to the reader:

The usual procedure is the exact opposite: one sees in the value relation only the proportion in which specific quantities of two sorts of commodity count as equal to each other.

Man verfährt meist grade umgekehrt und sieht im Wertverhältnis nur die Proportion, worin bestimmte Quanta zweier Warensorten einander gleichgelten.

Question 243 *The exchange relationship between the commodities is a symmetric relationship: if 20 yards of linen can be exchanged for a coat, then a coat can also be exchanged for 20 yards of linen. Besides, Marx said in 126:2 that this relationship appears at first as the quantitative proportion in which commodities can be exchanged for each other. Despite this, Marx argues that the expression of value contained in this relationship is not symmetric and not primarily quantitative. Summarize in your own words, and in a way that your 10-year-old nephew can understand, the arguments used by Marx to support these two claims. 2008SP.*

↓ Although it is commonly done, the procedure of beginning with the quantities cannot be right, for logical reasons alone:

One overlooks that the magnitudes of different things become comparable in quantitative terms only after these things have been reduced to the same unit.

Man übersieht, daß die Größen verschiedner Dinge erst quantitativ vergleichbar werden nach ihrer Reduktion auf dieselbe Einheit.

In German, the beginning of the above sentence “*man übersieht*” is parallel to the beginning to the

previous sentence “*man ... sieht*.” This is why I used the translation “one overlooks” instead of “it is

apt to be forgotten.”

↑ “Different” means here “*qualitatively* different.” Marx reminds the reader that exchange is contradictory, because it equates qualitatively *different* things with each other, and therefore requires *reduction*. Here is the word “reduction” again, which we first encountered in 47:1. ↓ Therefore it is appropriate to look at the quantity only after we know that the qualities are equal. Although this remark is a logical implication of the previous sentence, is a

little premature here because Marx has not yet shown that the qualities are equal. In the First edition [megaII/5]629:1, this and the preceding sentence were placed better, because they came after Marx's assertion/proof that the qualities are equal. In the later editions, this proof was given much earlier.

It is only as expressions of such a common unit that they are of the same denomination, and are therefore commensurable magnitudes.¹⁷

Nur als Ausdrücke derselben Einheit sind sie gleichnamige, daher kommensurable Größen.¹⁷

Question 244 What is the difference between “being of the same denomination” and “being commensurable magnitudes”?

Fowkes:

“Only as expressions of the same unit do they have a common denominator, and are therefore commensurable magnitudes.”

This is an unfortunate translation. For Marx, “being of equal

denomination” is a statement about quality, and “being commensurable” a statement about quantity. Compare 77:1. This nuance is lost in Fowke's translation because “having a common denominator” is already a quantitative statement. Moore-Aveling have it right:

“It is only as expressions of

such a unit that they are of the same denomination, and therefore commensurable magnitudes.”

This is one of the cases where Fowkes got it wrong, although the Moore-Aveling translation had it right.

Footnote 17 shows that the common-sense error of focusing on quantities and forgetting the qualities is repeated by the economists:

¹⁷ The few economists, such as S. Bailey, who have concerned themselves with the analysis of the form of value, were unsuccessful, firstly because they confuse the form of value with value itself, and secondly because, under the crude influence of the practical bourgeois, they give their attention from the outset, and exclusively, to the quantitative aspect of the question. ‘The command of quantity . . . constitutes value’ [Bai37, p. 11]. Written by S. Bailey.

¹⁷ Die wenigen Ökonomen, die sich, wie S. Bailey, mit der Analyse der Wertform beschäftigt haben, konnten zu keinem Resultat kommen, einmal, weil sie Wertform und Wert verwechseln, zweitens, weil sie, unter dem rohen Einfluß des praktischen Bürgers, von vornherein ausschließlich die quantitative Bestimmtheit ins Auge fassen. “Die Verfügung über die Quantität . . . macht den Wert.” [Bai37, p. 11]. Verfasser S. Bailey.

Samuel Bailey is an economist whom Marx takes seriously; Marx's *Theories of Surplus-Value*, [mecw32]312–353, contain a detailed analysis of Bailey's works.

[Message generated by the Linen Weaver's Exchange Offer] After all these remarks about the wrong approach, Marx finally shows us how to do it right, and tells us what remains of the Simple form of value if we look at it independently of its quantitative aspect.

60:1 Whether 20 yards of linen = 1 coat or = 20 coats or = x coats, i.e. whether a given quantity of linen is worth few or many coats, each such proportion always implies that the linen and the coat, as magnitudes of value, are expressions of the same unit, things of the same nature. Linen = coat is the basis of

64:3 Ob 20 Ellen Leinwand = 1 Rock oder = 20 oder x Röcke, d.h., ob ein gegebenes Quantum Leinwand viele oder wenige Röcke wert ist, jede solche Proportion schließt stets ein, daß Leinwand und Röcke als Wertgrößen Ausdrücke derselben Einheit, Dinge von derselben Natur sind. Lein-

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the equation.

wand = Rock ist die Grundlage der Gleichung.

↑ Our curiosity whether the linen weaver is willing to give 20 or 25 or 18 yards of linen for the coat should not detract us from a more basic noteworthy fact: her exchange offer tells everyone that in some respects, the two different commodity-kinds linen and coat are *equal* to each other.

Question 247 *If the linen weaver offers 20 yards of linen for 1 coat, then anyone who has a coat has the opportunity to convert it into linen. Should therefore the basis of the equation not be called “Coat = Linen” instead of, as Marx says in the Fourth edition in 141:1, “Linen = Coat”?*

↓ But Marx adds immediately that there is asymmetry in this equality. Although related, this asymmetry is not identical to the asymmetry discussed in 58:1. When we looked at the individual motivation of the linen weaver, the asymmetry consisted in the fact that the linen is a commodity which the linen weaver has produced, about which she has intimate knowledge regarding the labor time, skills, materials, and equipment necessary to produce it, but which she does not need. The coat is a use-value the linen weaver needs. Now, that we are looking at the social value relation sustained by this individual activity, the asymmetry consists in the fact that linen is offered on the market in exchange for coats, i.e., anybody who has a coat can convert it into linen. But the reverse does not hold. An owner of 20 yards of linen cannot be certain whether she will get a coat for it. Perhaps nobody will take the linen weaver up on her offer. Of course the linen weaver *wants* to turn her linen into a coat, but she cannot do it herself. All she can do is turn coats into linen, therefore she offers to turn coats into linen, in the hope someone will take her up on this offer. Since the linen weaver publicly offers linen in exchange for coats, the tailor does not have to go through the trouble of publicly offering his coat in exchange for linen. All he has to do is privately approach the linen weaver with his coat.

60:2 But these two qualitatively equated commodities do not play the same role. Only the value of the *linen* is expressed, not that of the coat.

64:4/o Aber die zwei qualitativ gleichgesetzten Waren spielen nicht dieselbe Rolle. Nur der Wert der Leinwand wird ausgedrückt.

Both translations say here: It is only the value of the linen that is

expressed. This can be misunderstood to mean: only the

value of the linen, not its use-value.

↑ This may seem surprising because in the First edition, 32:1/o, Marx says that both relative value form and equivalent form are forms of exchange-value, moments of the same relative expression of value. How can this inconsistency be explained? There is a difference between expression and representation of value. Unfortunately Marx does not use the terminology consistently, and right now he is using “expression” although the more precise term would be “representation.” A representation of value is an expression of value *detached* from the specific commodity whose value is expressed. In the equation “20 yards of linen is worth 1 coat,” the linen is privileged because its value is represented in an independent thing outside the linen, in the coat. The linen’s value is not only expressed but also represented. In the discussion that follows, Marx shows that the equivalent form develops from an independent representation of the value of the *linen* into an independent representation of value in general.

In our analysis of the linen weaver's thought processes in 58:4 we had a similar asymmetry. The linen weaver's offer of linen for coat is in her mind only an expression of the value of the linen, not an expression of the value of the coat. She is simply unable to express the value of the coat because she does not produce coats and therefore does not know the value of the coat. But now the situation is different. Earlier we looked at the *thoughts* of the linen weaver. Now we look at the social relations sustained by the linen weaver's *actions*.

And how is the value of the linen expressed? | Und wie?

↑ This question signals that we are no longer just accepting what the linen weaver *says* about the value of the linen, but that we are looking what her actions reveal. How can someone witnessing the linen weaver's offer of linen for a coat see this offer as a representation of the value of the linen but not of the coat?

By its relation to the coat as its 'equivalent' or the 'thing exchangeable' for it.

Durch ihre Beziehung auf den Rock als ihr „Äquivalent“ oder mit ihr „Austauschbares“.

↑ This ability to exchange the coat for linen is a surface relationship, i.e., a social relation between commodities on the market and, through the detour over these commodities, also between the commodity owners. These commodity owners do not share the linen weaver's need for a coat nor her knowledge about the cost of producing the linen. They only see that coats can, by exchange, be converted into linen.

↓ It is paradoxical that the linen weaver's offer to exchange 20 yards of linen for 1 coat, which for the linen weaver is the expression of the value of the linen in the use-value of the coat, does *not* signal to other market participants that the linen is value. On the contrary, the linen weaver's offer signals to them that the *coat* is value, since the coat has obtained the magical property of being exchangeable for linen.

On the one hand, the coat counts, in this relation, as the form of existence of value, as the material embodiment of value—for only as such is the coat the same as the linen.

In diesem Verhältnis gilt der Rock als Existenzform von Wert, als Wertding, denn nur als solches ist er dasselbe wie die Leinwand.

Only indirectly, through the detour over the coat, does the linen weaver's offer also signal that the linen is value:

On the other hand, in this relation it is also revealed, or obtains an independent expression, that the linen itself is value—for only as value can the linen point to the coat as something equivalent with linen or exchangeable for linen.

Andrerseits kommt das eigne Wertsein der Leinwand zum Vorschein oder erhält einen selbständigen Ausdruck, denn nur als Wert ist sie auf den Rock als Gleichwertiges oder mit ihr Austauschbares bezüglich.

↑ The word “independent” means here: this expression of the value of linen is no longer chained to the use-value of the linen and buried in the the brain of the linen weaver, but has its independent existence, for everyone to see and act upon. Now we are at the point where Marx shows how the expression of value is contained in the value relation. And although the expression of the value of the linen goes through a detour, Marx discusses it before discussing the expression of the value of the coat. The expression of the value of the coat will be discussed in the subsection about the Equivalent Form. It is much more dazzling than that of the linen, but it is limited in that only one commodity in society can play the role of being directly exchangeable against all other commodities. By contrast, not only the linen, but also all other commodities can express their values in a general equivalent.

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Question 249 *What does the linen weaver's offer to exchange linen for coat, tell us about the coat? about the linen? Do not look at the quantities offered but look at it only as the qualitative equation "linen = coat."* 2012fa, 2009fa, 2008fa, 2008SP, 2001fa, 1999SP, 1998WI, 1995WI.

The qualitative equation "linen = coat" says therefore two things:

1. The coat is a thing composed of value or, in other words, an embodiment of value (*Wertding*)—it is nothing but value, it is the form in which value exists. It can be used to "buy" linen.
2. Linen is still linen, a physical object—but one which has value. This additional aspect of it has obtained an independent expression in the coat that can be exchanged for linen.

Both coat and linen are values, otherwise the coat could not be exchanged for linen. But only the value of the linen is *represented* (i.e., obtains an independent expression) in the linen weaver's offer to make the exchange, not that of the coat. One can say this enriches the linen and impoverishes the coat. Linen lives a full life, all her inner traits come to fruition. The coat on the other hand only serves as incarnation of value, as the value quasi-material having become actual matter, namely, a coat. It applauds the linen. The linen may be tickled by this applause, but the coat is little more than a claqueur.

Next Marx brings an unfortunate analogy.

In the same way, butyric acid is a different substance from propyl formate. Yet both are made up of the same chemical substances, carbon (C), hydrogen (H) and oxygen (O). Moreover, these substances are combined together in the same proportions in each case, namely $C_4H_8O_2$. If now butyric acid were to be equated with propyl formate, then, in the first place, propyl formate would count in this relation only as a form of existence of $C_4H_8O_2$; and in the second place, it would thereby be asserted that butyric acid also consists of $C_4H_8O_2$. Thus by equating propyl formate with butyric acid one would be expressing their chemical composition as opposed to their bodily form.

So ist die Buttersäure ein vom Propylformat verschiedner Körper. Beide bestehn jedoch aus denselben chemischen Substanzen—Kohlenstoff (C), Wasserstoff (H) und Sauerstoff (O), und zwar in gleicher prozentiger Zusammensetzung, nämlich $C_4H_8O_2$. Würde nun der Buttersäure das Propylformat gleichgesetzt, so gälte in diesem Verhältnis erstens das Propylformat bloß als Existenzform von $C_4H_8O_2$ und zweitens wäre gesagt, daß auch die Buttersäure aus $C_4H_8O_2$ besteht. Durch die Gleichsetzung des Propylformats mit der Buttersäure wäre also ihre chemische Substanz im Unterschied von ihrer Körperform ausgedrückt.

This example is based on mistaken chemical concepts. Since butyric acid and propyl formate have an identical chemical formula $C_4H_8O_2$, Marx thought that their difference consisted in a "bodily" dimension not reducible to chemistry, while as chemical substances they were identical. Modern molecular chemistry can give a better explanation: although both molecules consist of the same atoms, the atoms are bound together in a different geometric arrangement. Therefore the difference is indeed a chemical one.

Question 252 *Marx gave here a mistaken example of emergence. Give examples where there is indeed emergence.* 1997ut, 1996sp, 1995ut, 1995WI.

[Characteristics of Value-Producing Labor] So far, Marx discussed the messages which the linen weaver sends out when she agrees to accept a coat for her linen. The recipients of these messages are not only the other commodity owners on the market, but also the producers of these commodities. Marx focuses now on the impact of the signals coming from the linen weaver's exchange offer on the *producers*. At the same time, he broadens his view and looks at the combined impact generated by *many* individual market offers, not just that of one linen weaver.

In order to describe this impact, Marx uses *speech* as a metaphor. This speech metaphor already lurked in the formulation “what does this equation say?” in 47:1, and in the formulation “this equation says” in 58:5/o. The commodities *say* something—not only to us but also to everybody else, including the private producers behind their closed doors labeled “no admittance.” What are they saying? According to Marx, they say everything which he, as a writer, and we, as the readers, had to unearth through tedious scientific analysis at the beginning of *Capital*.

It is not an accident that the connection between value and labor is drawn only now. Until now, “value” was simply the quasi-physical ingredient of the commodities which made them exchangeable, but it was unclear where value came from. As long as we only look at the sphere of circulation, we can see that the commodities have value, but the relations in circulation alone do not allow us to infer where this value comes from. But if we go beyond the market, and look how the market information enters the production decisions of the private producers, then labor comes into the picture automatically—because ultimately, labor is the only decision variable for the private producers. The producers use the market information in order to decide how much labor to allocate to the production of which use-value. Although the entire subsection has the title “content of the relative form of value,” we have only now arrived at the place where Marx discusses the *content* of the relative form of value.

↓ Marx begins with the results of his own analysis of the commodity, and then compares it with what the commodities themselves tell us. This is a somewhat abrupt transition, but this discontinuity should not surprise us, since an immanent transition to labor is not possible as long as one looks at the sphere of circulation alone.

60:3 If we say that, as values, commodities are merely congealed masses of human labor, our analysis reduces them to the abstraction “value,” but does not give them a form of value distinct from their bodily forms.

65:1 Sagen wir: als Werte sind die Waren bloße Gallerten menschlicher Arbeit, so reduziert unsre Analyse dieselben auf die Wertabstraktion, gibt ihnen aber keine von ihren Naturalformen verschiedene Wertform.

↑ If one has followed the earlier analysis, one knows that commodities as values can be reduced to abstract labor, but one does not know the transmission belt through which the practical activity of the commodity owners on the surface of the economy is translated into an organization of production based on abstract labor. This transmission mechanism is implicit in the two aspects of the definition of “form of value” given in (1) and (2) earlier.

But if we listen to the commodities themselves, they not only tell *us* that they are congealations of abstract labor, but they also tell this to the private producers and in this way enable the producers to treat them as commodities.

It is otherwise in the value relation of one commodity to another.

Anders im Wertverhältnis einer Ware zur andern.

↓ Marx introduces now the metaphor that, through their interactions on the market, the commodities tell us everything about the nature of value which we know from our scientific

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analysis.

The first commodity's value character steps here forward through its own relationship with the second commodity.

Ihr Wertcharakter tritt hier hervor durch ihre eigne Beziehung zu der andern Ware.

↑ With the formulation that the commodity's value character "steps forward" through its relationship with the other commodities, Marx had the Hegelian concept of *appearance* in mind. The definition of appearance is that *all* properties of the hidden essence (here of value) are reflected in the appearance. From a Critical Realist perspective the goal is more specific: the relationships and interactions on the surface must generate the information and incentives for the producers so that they can treat their products as values, i.e., as containers of abstract labor, and are motivated to do so. In other words, the surface interactions not only make the true character of the underlying relations recognizable to the researcher, but they also force the producers to adhere to these underlying relations of production if they want to compete successfully.

↓ In the next paragraph, Marx shows how it is indicated by the relations of the commodities that the labor which creates the value of the linen does not differ from the labor which creates the value of the coat, i.e., it is human labor in the abstract.

60:4/o By setting the coat, for example, as a thing of value equal to the linen, the commodity owners also set the labor embedded in the coat equal to the labor embedded in the linen.

65:2 Indem z.B. der Rock als Wertding der Leinwand gleichgesetzt wird, wird die in ihm steckende Arbeit der in ihr steckenden Arbeit gleichgesetzt.

The "for example" means "for example the coat, but it could also be any other commodity." The Moore-Aveling translation omits it, although it is important here: it indicates that we are no longer talking about the one linen weaver, but we are talking about the aggregate effect of many individual exchanges. Instead of "setting equal" the

Moore-Aveling translation has: "By making the coat the equivalent of the linen, we equate the labor embodied in the former to that in the latter." Fowkes has: "By equating, for example, the coat as a thing of value to the linen, we equate the labor embedded in the coat with the labor embedded in the linen." The "we" in both translations is

unfortunate: the reader must think the "we" is the researcher from the preceding paragraph which started with the words "if we say that." But it is exactly not; rather, Marx is talking here about the actions of the commodity owners, and in German he does not use the word "we."

Question 253 *If the linen weaver is willing to give 20 yards of linen for a coat, does she set linen equal to coat or coat equal to linen?* 2009fa.

↑ If the linen weaver offers linen in exchange for coats, then this is at first only of interest for the producers of *coats*. If they had ever contemplated switching to the production of linen, this is now no longer necessary. They can just continue producing coats and then trade their coats for linen. ↓ One might say, tailoring counts now at the same time as weaving labor, i.e., it counts as that which is common in both kinds of labor, as abstract human labor. It is true, tailoring, which makes the coat, is concrete labor of a different sort than weaving, which makes the linen. But by equating tailoring with weaving, the commodity owners reduce tailoring in fact to what is really equal in the two kinds of labor, namely, that they are both human labor.

Nun ist zwar die Schneiderei, die den Rock macht, eine von der Weberei, die die Leinwand macht, verschiedenartige konkrete Arbeit. Aber die Gleichsetzung mit der Weberei reduziert die Schneiderei tatsächlich auf das in beiden Arbeiten wirklich Gleiche, auf ihren gemeinsamen Charakter menschlicher Arbeit.

↑ When Marx says that tailoring is “in fact” reduced to abstract human labor, he means this in contrast to reducing tailoring “in theory” to abstract human labor. In theory, the act of making coats can always be considered as an expenditure of human labor, just as the act of weaving linen. But only if the linen weaver is willing to exchange linen for coats does this abstraction gain practical relevance. Now the labor making coats counts “in fact” as the incarnation of abstract human labor which can, if the tailor so desires, take the form of linen.

↓ Once coats become the means to acquire linen, then also linen weaving counts as abstract labor, on a detour because this is the case only if someone takes up the linen weaver on her offer.

Through this detour over tailoring they say that weaving too, in so far as it weaves value, has nothing to distinguish it from tailoring, and, consequently, is abstract human labor.

Auf diesem Umweg ist dann gesagt, daß auch die Weberei, sofern sie Wert webt, keine Unterscheidungsmerkmale von der Schneiderei besitzt, also abstrakt menschliche Arbeit ist.

↑ To say it again, this is a detour, but this detour is the only possible way for linen weaver to act as abstract, not concrete, labor for the linen weaver. The linen weaver would like to turn linen into any other use-value which she needs and which contains as much abstract labor as the linen itself. But she cannot do this; her labor only produces linen, not other things. But what the linen weaver cannot do for herself, she can do for others. For instance, she can turn a coat into linen, simply by giving linen in exchange for a coat. But now we see that this is a detour over which she can do it for herself after all: namely, if someone takes her up on her exchange offer, then this exchange, which for the other person is the conversion of coat into linen, is for the linen weaver at the same time the conversion of linen into a coat. Note again the speech metaphor: this conversion “says” that linen is abstract human labor.

↓ The more indirect way in which linen counts as abstract labor has the advantage that it is generalizable to other commodities, since the coat’s ability to purchase can be extended from only purchasing linen to purchasing other things as well. On the other hand, the coat’s role is not generalizable; although every commodity owner wishes his or her own commodity would play the role of general equivalent, only one commodity overall can be in such a role. This is why Marx looks first at the linen-side of the equation. He will return to the coat-side in 61:1.

Only the expression of different sorts of commodities as equivalents makes the specific character of value-creating labor apparent, by in fact reducing the different kinds of labor embedded in the different kinds of commodities to their common quality of being human labor in general.^{17a}

Nur der Äquivalenzausdruck verschiedenartiger Waren bringt den spezifischen Charakter der wertbildenden Arbeit zum Vorschein, indem er die in den verschiedenartigen Waren steckenden, verschiedenartigen Arbeiten tatsächlich auf ihr Gemeinsames reduziert, auf menschliche Arbeit überhaupt.^{17a}

↑ The above sentence contains another “in fact” because the market relations do those things in fact which our theoretical analysis had explored only theoretically: they reduce all labor to abstract human labor.

↓ The thoughts of Ben Franklin, one of the earliest economists exploring the nature of value, are a simple translation of these exchange relationships into words:

^{17a} Note to the 2nd edition: One of the first economists, after William Petty, to have deciphered the nature of value, is the famous Franklin: “Trade in general being nothing else

^{17a} Note zur 2. Ausgabe. Einer der ersten Ökonomen, der nach William Petty die Natur des Werts durchschaut hat, der berühmte Franklin, sagt: „Da der Handel überhaupt nichts ist als der

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but the exchange of labor for labor, the value of all things is ... most justly measured by labor" [Spa36, p. 267]. Franklin is not aware that by measuring the value of everything 'in labor' he makes abstraction from any difference in the kinds of labor exchanged—and thus reduces them all to equal human labor. Yet he states this without knowing it. He speaks first of the one 'labor', then of another 'labor', and finally of 'labor', without further qualification, as the substance of value of everything.

Austausch einer Arbeit gegen andre Arbeit, wird der Wert aller Dinge am richtigsten geschätzt in Arbeit" [Spa36, p. 267]. Franklin ist sich nicht bewußt, daß, indem er den Wert aller Dinge „in Arbeit“ schätzt, er von der Verschiedenheit der ausgetauschten Arbeiten abstrahiert—und sie so auf gleiche menschliche Arbeit reduziert. Was er nicht weiß, sagt er jedoch. Er spricht erst von „der einen Arbeit“, dann „von der andren Arbeit“, schließlich von „Arbeit“ ohne weitere Bezeichnung als Substanz des Werts aller Dinge.

[Value is Congealed Labor, not Living Labor] ↓ We are not yet done showing how the value character of the linen steps forward through its relationship with the coat:

61:1 However, it is not sufficient to express the specific character of the labor which makes up the value of the linen.

65:3/o Es genügt indes nicht, den spezifischen Charakter der Arbeit auszudrücken, woraus der Wert der Leinwand besteht.

Value is not identical to abstract labor itself but it is *congealed* abstract labor, i.e., although it is a social relation, it has the character of a material. This material character of value must also be expressed in the value relations. (The development which follows now is parallel to the earlier 48:3.)

Human labor-power in its fluid state, or human labor, creates value, but is not itself value. It becomes value in its coagulated state, in bodily form.

Menschliche Arbeitskraft im flüssigen Zustand oder menschliche Arbeit bildet Wert, aber ist nicht Wert. Sie wird Wert in geronnenem Zustand, in gegenständlicher Form.

↑ The labor producing the linen could have been used to produce coats, and it could also have been used to produce anything else, but it must always be in a product, since storing the labor as labor is not an option.

In order to express the value of the linen as a congealed mass of human labor, it must be expressed as a "materiality," a thing, that is different than the linen itself and at the same time common to linen and all other commodities.

Um den Leinwandwert als Gallerte menschlicher Arbeit auszudrücken, muß er als eine „Gegenständlichkeit“ ausgedrückt werden, welche von der Leinwand selbst dinglich verschieden und ihr zugleich mit andrer Ware gemeinsam ist.

The quasi-material character of value must be expressed as well by the relations of the commodities with each other.

The task is already solved.

Die Aufgabe ist bereits gelöst.

The reader can guess at this point how this is already solved: The quasi-material inside the linen, which makes up the value of the linen and which, as we know, does not intersect with the physical material making up the linen, is represented by an actual physical material which is different from the linen, namely, by the coat. Marx needs more than one paragraph to make this point, i.e., to support his claim that the task has already been solved.

For the preceding and the following paragraphs the French, p. [megaII/7]33:4/o, has something interesting to say which needs to be incorporated here.

61:2 In the value relation of the linen, the coat counts as a thing qualitatively equal to the linen, as a thing of the same nature as linen, because it is a value.

66:1 Im Wertverhältnis der Leinwand gilt der Rock als ihr qualitativ Gleiches, als Ding von derselben Natur, weil er ein Wert ist.

↑ This we know already, ↓ but in the next sentence Marx says something new which needs a proof:

It counts therefore as a thing in which value manifests itself, or which, in its tangible bodily form, represents value.

Er gilt hier daher als ein Ding, worin Wert erscheint oder welches in seiner handgreiflichen Naturalform Wert darstellt.

Marx begins the demonstration of this claim by doubting how it can possibly be the case: Yet the coat itself, the body of the commodity “coat,” is purely a use-value. A coat does not express value any more than does the first piece of linen we come across.

Nun ist zwar der Rock, der Körper der Rockware, ein bloßer Gebrauchswert. Ein Rock drückt ebensowenig Wert aus als das erste beste Stück Leinwand.

↑ In other words, this is again an impasse. ↓ Before resolving this impasse, Marx cannot resist a pun (uniforms are special kinds of coats), which emphasizes again that the coat gets this stature only from society—although once it has this stature, it seems as if it had it by its own nature:

This proves only that the coat counts for more when inside the value relation with the linen than outside it, just as many a human counts for more when inside a gold-braided uniform than outside it.

Dies beweist nur, daß er innerhalb des Wertverhältnisses zur Leinwand mehr bedeutet als außerhalb desselben, wie so mancher Mensch innerhalb eines galonierten Rockes mehr bedeutet als außerhalb desselben.

↓ After this jocular interruption Marx asks: on which basis can the coat be a representation of the value of the linen?

62:1 In the production of the coat, human labor-power, in the shape of tailoring, was in actual fact expended.

66:2 In der Produktion des Rockes ist tatsächlich, unter der Form der Schneiderei, menschliche Arbeitskraft verausgabt worden.

↑ The tailor has done two things at the same time: On the one hand he has produced a coat, and on the other he has used up his own labor-power in order to do this. ↓ But the utilization of human labor-power is exactly the definition of abstract human labor.

Consequently, human labor is accumulated in the coat.

Es ist also menschliche Arbeit in ihm aufgehäuft.

↑ In this last sentence, Marx does not speak about useful but about abstract labor. The useful labor producing the coat is not accumulated but objectified in the coat, i.e., it is a thing of the past, with its traces visible in the use-value of the coat. The abstract labor, by contrast, is accumulated or congealed. It continues to exist in the coat as labor. If one wishes, one can get this labor back out of the coat again: the linen weaver’s offer is an opportunity for the tailor to retrieve his abstract labor in a form in which it may be more useful for him, namely in the form of linen instead of coats.

Question 254 Marx says that abstract labor has been accumulated in the coat. He would never say that concrete labor has been accumulated in the coat. Why not? 2008fa.

By virtue of this, the coat is a ‘carrier of value’, although this property does not show through anywhere, even where the coat is at its most threadbare.

Nach dieser Seite hin ist der Rock „Träger von Wert“, obgleich diese seine Eigenschaft selbst durch seine größte Fadenscheinigkeit nicht durchblickt.

↑ The coat can only be a representation of the value of the linen because the coat itself is value. But this value is invisible. Even the most threadbare coat, which allows one to see the person inside the coat, does not let us see the value inside the coat.

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Question 255 Marx says that the human labor accumulated in the coat is not visible in the coat. Is this not obviously wrong? Everybody who sees a coat knows that it is a product of human labor, this coat would not exist without the human labor that produced it. 2005fa.

↓ Despite its invisibility, this value inside the coat is very powerful: it governs the linen's relationship with the coat.

And in the value relation of the linen, the coat counts only under this aspect, counts therefore as embodied value, as incarnation of value.

Und im Wertverhältnis der Leinwand gilt er nur nach dieser Seite, daher als verkörperter Wert, als Wertkörper.

↑ Marx refers here to the reducibility of the exchange relations to a quasi-material inside the things exchanged, first introduced in 47:1. Since the exchange relationship between coat and linen is reducible to some immaterial substance inside linen and coat, this immaterial substance (quasi-material) inside the coat is the *only* thing that governs the linen's relationship with the coat. I.e., not only does the linen *see* this invisible quasi-material in the coat, but this is indeed the *only* thing the linen sees in the coat. For the linen, therefore, the coat consists only of value. ↓ With this, the first half of the statement 61:2 is proved. The next sentence celebrates this achievement.

Despite its buttoned-up appearance, the linen recognizes in the coat a splendid kindred soul, the soul of value.

Trotz seiner zugeknöpften Erscheinung hat die Leinwand in ihm die stammverwandte schöne Wertseele erkannt.

↑ “*Stammverwandt*” is a kinship term which emphasizes that two people come from the same breed. Although the coat is made of wool, coat and linen are “cut from the same cloth,” namely, they are both the expenditure of abstract human labor.

↓ But Marx pushes on to make his next argument. By turning the coat into an expression of the linen's value, the linen turns at the same time the coat into an incarnation of *all* value, i.e., all value looks now like coats. Note that Marx uses now the word “represent” instead of the earlier “express.”

The coat, however, cannot represent value towards the linen unless value, for the latter, at the same time assumes the shape of a coat.

Der Rock kann ihr gegenüber jedoch nicht Wert darstellen, ohne daß für sie gleichzeitig der Wert die Form eines Rockes annimmt.

The “nevertheless” in the Fowkes translation is disastrous.

↑ After the linen has created, in the coat, a representation of its value which is no longer attached to the linen but detached, in German *selbständig*. The coat tends to forget that it has obtained its ability to represent value from the linen but thinks it has this value form in its own right. This tendency is already present in the Simple form of value but it is almost imperceptible. The tailor cannot go to the shoemaker and say: “the linen weaver is willing to accept this coat and give me linen in exchange, therefore I want you to accept this coat and give me shoes in exchange.” In the Simple form of value it is too obvious that the coat has obtained its form of value from the linen and has it only in relation with the linen. But in the further development, after society has proceeded from the Simple equivalent to the General equivalent, it is far less obvious that gold has obtained its special role as the incarnation of value only from the ordinary commodities, on the contrary, gold seems to be this incarnation by itself. ↓ The metaphor of a king applies much more strikingly to the general equivalent form than the Simple equivalent form. After all, a king does not become king because one of his subjects treats him or her as king, but because all of his subjects do. This “generic”

application of the metaphor of the king will be given a little later, in the section about the Fetish-like character of the commodity, in the footnote to 67:2/o. But let's see what Marx says about kings already now:

An individual, *A*, for instance, cannot be 'your majesty' to another individual, *B*, unless majesty in *B*'s eyes assumes the physical shape of *A*, and, moreover, changes facial features, hair and many other things, with every new 'father of his people'.

So kann sich das Individuum *A* nicht zum Individuum *B* als einer Majestät verhalten, ohne daß für *A* die Majestät zugleich die Leibesgestalt von *B* annimmt und daher Gesichtszüge, Haare und manches andre noch mit dem jedesmaligen Landesvater wechselt.

↑ If you are in a one-on-one relation with a king, don't look for royal characteristics in the king's anatomy or behavior. A king is just a normal human being. His "royalty" comes from the relations in which he is placed, not from his inner qualities. If you are still not convinced, assume the country gets a new king. Suddenly that what seem to be royal shifts from the characteristics of the former king to the characteristics of the new king. (This was common experience at Marx's time; nowadays most of us can only imagine what it was like.)

To repeat, Marx uses this metaphor to make one point: the tendency to forget that the value form is a social relation and to consider it an inherent quality, a tendency which is very obvious with gold, this tendency is already present, although in a much more subtle way, with the coat. This tendency arises as soon as some commodity, here linen, has created a representation of its value in a use-value detached from the linen itself.

↑ The use-value of the coat is therefore not only an expression but also a representation of value. ↓ For the linen this means: it has obtained a value form which is different from (and independent of) its bodily form:

62:2 Hence, in the value relation in which the coat is the linen's equivalent, the bodily shape of the coat counts as form of value. The value of the commodity linen is therefore expressed in the physical body of the commodity coat, the value of one in the use-value of the other. As a use-value, the linen is something palpably different from the coat; as value, it is equal to the coat and therefore looks like a coat. Thus the linen acquires a value form different from its bodily form.

66:3 Im Wertverhältnis, worin der Rock das Äquivalent der Leinwand bildet, gilt also die Rockform als Wertform. Der Wert der Ware Leinwand wird daher ausgedrückt im Körper der Ware Rock, der Wert einer Ware im Gebrauchswert der andren. Als Gebrauchswert ist die Leinwand ein vom Rock sinnlich verschiednes Ding, als Wert ist sie „Rockgleiches“ und sieht daher aus wie ein Rock. So erhält sie eine von ihrer Naturalform verschiedne Wertform.

↓ Marx punctuates this climax in the argument with a dose of shock therapy for his religious readers:

The value-character of linen is manifested in its equality with the coat, just as the sheep-like nature of christians is manifested in their equality with the lamb of god.

Ihr Wertsein erscheint in ihrer Gleichheit mit dem Rock wie die Schafsnatur des Christen in seiner Gleichheit mit dem Lamm Gottes.

↑ This is the end of the detailed demonstration how the coat as a thing outside the linen represents the value quasi-material of the linen, i.e., of the explanation how the "task is already solved," as Marx had said at the end of 61:1. The use of the word "appears" is significant here, because this is the Hegelian concept of appearance.

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[Commodity Language and its Dialects] ↓ Now Marx concludes the thread about language started at 60:3, by saying once more very clearly that *everything* which our scientific analysis has unearthed about the commodity is reflected in the relations of the commodities themselves:

62:3 We see, then, that everything our analysis of the value of commodities previously told us is repeated by the linen itself, as soon as it interacts with another commodity, the coat. Only it reveals its thoughts in the only language it is familiar with, the language of commodities.

66:4/o Man sieht, alles, was uns die Analyse des Warenwerts vorher sagte, sagt die Leinwand selbst, sobald sie in Umgang mit anderer Ware, dem Rock, tritt. Nur verrät sie ihre Gedanken in der ihr allein geläufigen Sprache, der Warensprache.

↓ Marx recapitulates the two highlights of the earlier derivation, in order to show how the commodity language differs from our own scientific analysis:

In order to say that its own value has been created by labor in its abstract quality of being human labor, the linen says that the coat, in so far as it counts as the linen's equal, i.e. in so far as it is value, consists of the same labor as the linen does itself.

Um zu sagen, daß die Arbeit in der abstrakten Eigenschaft menschlicher Arbeit ihren eignen Wert bildet, sagt sie, daß der Rock, soweit er ihr gleichgilt, also Wert ist, aus derselben Arbeit besteht wie die Leinwand.

The first ↑ highlight was the home-grown character of value-producing labor, and the second ↓ the think-like representation of abstract labor.

In order to say that the sublime quasi-material which makes up its value differs from its stiff and starchy existence as a body, it says that value looks like a coat, and therefore that in so far as the linen itself is a value-thing, it and the coat are as alike as two peas.

Um zu sagen, daß ihre sublime Wertgegenständlichkeit von ihrem steifleinenen Körper verschieden ist, sagt sie, daß Wert aussieht wie ein Rock und daher sie selbst als Wertding dem Rock gleicht wie ein Ei dem andern.

↑ Marx compares the commodity relations with a language which has the vocabulary to say certain things about value. They are no better or worse, only different than human languages.

Question 256 Take those things which we found out from the analysis of value, and describe how the linen itself tells them to us. Can the coat tell us a similar story? 2005fa.

↓ Even among the human languages some are better able to portray value than others.

Let us note, incidentally, that the language of commodities has, in addition to the Hebrew, also plenty of other more or less correct dialects. The German word 'Wertsein' (to be worth), for instance, brings out less strikingly than the Romance verb 'valere', 'valer', 'valoir' that by equating commodity *B* with commodity *A*, commodity *A* expresses its own value.

Nebenbei bemerkt, hat auch die Warensprache, außer dem Hebräischen, noch viele andre mehr oder minder korrekte Mundarten. Das deutsche „Wertsein“ drückt z.B. minder schlagend aus als das romanische Zeitwort valere, valer, valoir, daß die Gleichsetzung der Ware *B* mit der Ware *A* der eigne Wertausdruck der Ware *A* ist.

↑ "Being worth" is less "striking" than the Romance verb because it does not indicate the active character of the relative value form.

The analytical effort made in *Capital* to understand the commodity is equated here with a translation. The day-to-day languages of the agents are dialects of the commodity language, i.e., they speak this language but do not necessarily understand it.

Question 257 What does Marx mean by a “correct” dialect?

Paris vaut bien une messe!

Paris is well worth a mass!

Question 259 When Henry IV was required to renounce Protestantism in order to become King of France, he said (or could have said): “Paris vaut bien une messe,” i.e., Paris is well worth a (Catholic) mass. Is Paris in the relative or equivalent form of value? Is Henry in the position of the linen weaver or of the tailor? Was Henry bargaining with the Pope, or his Catholic subjects? Would Marx say the person in the position of the linen weaver is equating Paris to the Catholic mass, or the Catholic mass to Paris? [1997WI](#), [1995WI](#).

62:4/o By means of the value relation, therefore, the bodily form of commodity *B* becomes the value form of commodity *A*, i.e., the physical body of commodity *B* becomes the mirror which reflects the value of commodity *A*.¹⁸

67:1 Vermittelst des Wertverhältnisses wird also die Naturalform der Ware *B* zur Wertform der Ware *A* oder der Körper der Ware *B* zum Wertspiegel der Ware *A*.¹⁸

[Summary] This and the footnote sum up once more the main message of this section, that the value relation is an *expression* of value:

¹⁸ In a certain sense, every human being is in the same situation as a commodity. As he or she neither enters into the world with a mirror in their hand, nor as a Fichtean philosopher who can say ‘I am I’, a human first mirrors himself in a human.

¹⁸ In gewisser Art geht’s dem Menschen wie der Ware. Da er weder mit einem Spiegel auf die Welt kommt noch als Fichtescher Philosoph: Ich bin ich, bespiegelt sich der Mensch zuerst in einem andren Menschen.

↑ This footnote still reflects the understanding of modern sociology. “It is only as the result of taking the role of the other—of coming to see oneself from the viewpoint of others—that the individual develops an awareness of self.” [\[Ros91\]](#), p. 124]. ↓ Marx describes it as follows:

Peter only relates to himself as a human through his relation to another human, Paul, in whom he recognizes his likeness. With this, however, Paul also becomes from head to toe, in his physical form as Paul, the form of appearance of the human species for Peter.

Erst durch die Beziehung auf den Menschen Paul als seinesgleichen bezieht sich der Mensch Peter auf sich selbst als Mensch. Damit gilt ihm aber auch der Paul mit Haut und Haaren, in seiner paulinischen Leiblichkeit, als Erscheinungsform des Genus Mensch.

↑ If the reader is still puzzled by this detour, that the expression of the value of the linen goes through turning the coat into an incarnation of value, one should remember that *humans* define their identity in their relations with others as well. By the way, the metaphor with Peter and Paul has its limits because Peter has no part in creating Paul, while the linen plays an active role in making the coat into the mirror of its value.

By entering into a relation with commodity *B* as the embodiment of value, as a materialization of human labor, commodity *A* turns

Indem sich die Ware *A* auf die Ware *B* als Wertkörper bezieht, als Materiatur menschlicher Arbeit, macht sie den Gebrauchswert

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the use-value *B* into the material through which its own value is expressed. The value of commodity *A*, thus expressed in the use-value of commodity *B*, has the form of relative value.

B zum Material ihres eignen Wertausdrucks. Der Wert der Ware *A*, so ausgedrückt im Gebrauchswert der Ware *B*, besitzt die Form des relativen Werts.

When we interpreted Marx's preliminary reflections about the meaning of the sentence "20 yards of linen are worth 1 coat" as the linen weaver's private deliberations, we already came to the result that for the linen weaver privately, the use-value of the coat is an expression of the value of the linen—because the weaver needs a coat and is willing to give linen in exchange for it. **FIXME:** I know now that this is a wrong interpretation. See the Annotations to 58:4. Now we have just derived that in the web of surface relations embracing the linen weaver when she makes her exchanges, the use-value of the coat is an expression of the value of the linen as well. Not because society likes coats, but because the activity of surface agents has created an expression of the value of the linen detached from use-value of the linen. This detached form forgets that it is the value of *linen* and becomes the incarnation of value pure and simple. The coat as a thing, its natural use-value form, doubles up as the material for the value forms of other commodities. The linen weaver's private deliberation has therefore gained a social echo.

Question 263 *How does the social scientist's analysis of the substance of value differ from what the commodities themselves tell us about value?* 2004fa, 1997ut, 1996sp.

Quantitative Determination of the Relative Form of Value Now let us return to the quantitative aspect, which had been disregarded earlier: to what extent is the relative form of value determined quantitatively?

63:1 Every commodity, whose value is to be expressed, is a given quantity of a useful object, for instance, 15 bushels of wheat, or 100 lb. of coffee.

67:2 Jede Ware, deren Wert ausgedrückt werden soll, ist ein Gebrauchsgegenstand von gegebenem Quantum, 15 Scheffel Weizen, 100 Pfd. Kaffee usw.

↑ The phrase "whose value is to be expressed" takes us back to the situation at the very beginning of section 1.3, see 57:1: The linen weaver has produced linen although she personally does not need linen. She needs a form of value in the sense of criterion (2), a form which allows her to take advantage of the labor she has put into the linen.

This was discussed previously, but the earlier discussion is now amended in order to take in the quantitative dimension which had been set aside in 60:1. During the week, the linen weaver produced specific pieces of linen, ↑ each having a size, a color, etc., and ↓ each representing a specific quantity of labor.

This commodity-quantity contains a specific quantity of human labor.

Dieses gegebne Warenquantum enthält ein bestimmtes Quantum menschlicher Arbeit.

↑ The adjective "human" in "human labor" is relevant here. Marx is not talking about the linen weaver's specific labor but about human labor in the abstract. ↓ If therefore the next sentence says that the value form of the commodity must give credit for each of these portions of her labor, big or small, we must remember that the linen weaver does not get social recognition for her actual labor, but for that labor that is socially necessary to produce the products she brings to market.

The form of value must therefore not only express value itself, but quantitatively determined value, i.e. the magnitude of value.

Die Wertform hat also nicht nur Wert überhaupt, sondern quantitativ bestimmten Wert oder Wertgröße auszudrücken.

Question 264 Can you give an example in which something is the expression of another thing without being the expression of the quantity of that other thing? 1998WI, 1997ut, 1997WI, 1995WI.

↓ Marx might have said here “this task is already solved” because the surface relationship which is the starting point for the forms of value has a clear quantitative dimension.

In the value relation of commodity A to commodity B, of the linen to the coat, therefore, not only is the commodity-type coat, which counts here as the incarnation of value as such, equated in qualitative terms with the linen, but also a definite quantity of the value-object or equivalent, 1 coat for example, is equated with a definite quantity of linen, such as 20 yards.

Im Wertverhältnis der Ware A zur Ware B, der Leinwand zum Rocke, wird daher die Warenart Rock nicht nur als Wertkörper überhaupt der Leinwand qualitativ gleichgesetzt, sondern einem bestimmten Leinwandquantum, z.B. 20 Ellen Leinwand, ein bestimmtes Quantum des Wertkörpers oder Äquivalents, z.B. 1 Rock.

↑ It is a little unclear what the word “therefore” (*daher*) in this long sentence refers to. The argument cannot be that the value relations have a quantitative dimension because the linen weaver needs a quantitative expression of the value, therefore I assume the argument is: since value-producing labor is quantitatively determined, the value relations on the surface are quantitatively determined as well. Or to say it in terms of the practical actions of the economic agents, if it didn’t matter to the producers how much work went into each product, then the market participants would not pay much attention either to the quantities exchanged on the market. Marx nowhere explains it this way, therefore it is not clear whether this is what he meant. ↓ After talking about the value relations which contain the value expression, Marx talks now about this value expression itself:

63:2 The equation 20 yards of linen = 1 coat, or 20 yards of linen are worth 1 coat, presupposes that 1 coat contains just as much of the substance of value as 20 yards of linen, i.e., that the quantities in which the two commodities are present have cost the same amount of labor or the same quantity of labor-time.

67:3/o Die Gleichung: „20 Ellen Leinwand = 1 Rock oder: 20 Ellen Leinwand sind 1 Rock wert“ setzt voraus, daß in 1 Rock gerade so viel Werts substanz steckt als in 20 Ellen Leinwand, daß beide Warenquanta also gleich viel Arbeit kosten oder gleich große Arbeitszeit.

Question 265 Is 144:2/o the first time Marx says that exchange proportions must be quantitatively proportional to labor-time, or has he said this already earlier?

↑ After having established in the previous paragraph (in German MEW) or at the beginning of this paragraph (in the English edition) 63:1 that both the labor process in production and the value relations on the surface are quantitatively determined, his last sentence makes a much stronger assertion: it postulates a quantitative *correspondence* between socially necessary labor in the production process and the exchange proportions on the surface. That Marx is making this strong assertion without any supporting arguments seems a little baffling. Perhaps he is guided by the consideration that a form change cannot add or subtract substance, therefore the quantities are preserved. But earlier, in 48:5/o, when he tried to transfer the quantity of labor into the quantity of value, he ran into the paradox of the lazy worker and had to correct himself. Also in the present situation, a similar correction is in store for him, since in a capitalist economy the exchange proportions are even on average

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not proportional to values but to prices of production. Perhaps Marx is so relaxed about this because he is making the tacit second-order argument that the surface relations can only then be coherent with the process going on in production, instead of interfering with it, if they are also quantitatively a reflection of the underlying quantity of labor.

Before we continue with the argument, just one brief remark about the wording. Marx writes here: “presupposes” because the equation “20 yards of linen = 1 coat” does not mean that the linen weaver decides how much she wants to give for a coat. The assumption is that “20 yards of linen = 1 coat” are the exchange proportions given by the market. If these are the prevailing market exchange proportions, then there must be linen weavers and tailors who are willing to make this exchange at these terms. Marx picked one of these linen weavers.

One might think here that Marx makes it too easy for himself. He claims quantitative correspondence between exchange proportions on the surface and labor content in production without giving much justification. ↓ However even if this correspondence between surface and underlying relations of production is achieved at one point, it is continually challenged by changes in productivity. Here Marx does his homework: He pays close attention to how such disturbances are reflected on the surface.

But the labor-time necessary for the production of 20 yards of linen or 1 coat varies with every change in the productive power of weaving or tailoring. The influence of such changes on the relative expression of the magnitude of value shall now be investigated in more detail.

Die zur Produktion von 20 Ellen Leinwand oder 1 Rock notwendige Arbeitszeit wechselt aber mit jedem Wechsel in der Produktivkraft der Weberei oder der Schneiderei. Der Einfluß solcher Wechsel auf den relativen Ausdruck der Wertgröße soll nun näher untersucht werden.

↑ Perhaps this emphasis on changes comes from the insight that individual surface activity does not *create* the social relations, but it *reproduces* them.

The previous discussions of productivity (55:4–56:1) looked at one use-value only. Now (63:3–65:1) Marx discusses the influence of a change in productivity on the *relative* expression of the magnitude of value. He asks whether changes in exchange-value of a commodity reflect changes in productivity. The answer will be: yes, but changes in productivity are not unambiguously reflected in relative value changes. The reason is simple. A fall in the productivity of making linen has the same effect on their relative values as a rise in the productivity of making coats. Therefore even in the best of all cases, in which exchange-values are precisely determined by relative value quantities, changes in productivity are not well reflected in the market relations.

The next two paragraphs describe two situations, both of which involve changes in productivity:

63:3 I. Let the value of the linen change¹⁹ while that of the coat remains constant. If the labor-time necessary for the production of linen be doubled, as a result of the increasing infertility of flax-growing soil for instance, its value will also be doubled. Instead of the equation 20 yards of linen = 1 coat, we will have 20 yards of linen = 2 coats, since 1 coat contains now only half as much labor-time as 20 yards of linen. If, on the other hand, the necessary labor-time be reduced by one half, as a result of im-

68:1 I. Der Wert der Leinwand wechsle,¹⁹ während der Rockwert konstant bleibt. Verdoppelt sich die zur Produktion der Leinwand notwendige Arbeitszeit, etwa infolge zunehmender Unfruchtbarkeit des flachstragenden Bodens, so verdoppelt sich ihr Wert. Statt 20 Ellen Leinwand = 1 Rock hätten wir 20 Ellen Leinwand = 2 Röcke, da 1 Rock jetzt nur halb so viel Arbeitszeit enthält als 20 Ellen Leinwand. Nimmt dagegen die zur Produktion der Leinwand notwendige Arbeitszeit um die Hälfte ab, etwa infolge ver-

proved looms for instance, the value of the linen will fall by one half. The equation will therefore now read 20 yards of linen = 1/2 coat. The relative value of commodity *A*, i.e. its value expressed in commodity *B*, rises and falls in direct relation to the value of *A*, if the value of *B* remains constant.

This is a paradoxical relationship: infertility means more value, improvement of the looms means less value. But it can be understood if we put ourselves into the shoes of the linen weaver: if she can produce more linen in the same time, she may be inclined to pay more linen in order to get a coat.

¹⁹ Here, as occasionally also on previous pages, we use the expression ‘value’ for quantitatively determined values, i.e. for the magnitude of value.

besserter Webstühle, so sinkt der Leinwandwert um die Hälfte. Demgemäß jetzt: 20 Ellen Leinwand = 1/2 Rock. Der relative Wert der Ware *A*, d.h. ihr Wert ausgedrückt in der Ware *B*, steigt und fällt also direkt wie der Wert der Ware *A*, bei gleichbleibendem Wert der Ware *B*.

¹⁹ Der Ausdruck Wert wird hier, wie beiläufig schon früher stellenweis geschah, für quantitativ bestimmten Wert, also für Wertgröße gebraucht.

Question 266 *Are there places earlier in chapter One where Marx wrote “value” where it would have been more precise to write “magnitude of value”?*

If productivity changes on the other pole, there is an inverse quantitative relationship:

64:1 II. Let the value of the linen remain constant, while the value of the coat changes. If, under these circumstances, the labor-time necessary for the production of a coat is doubled, as a result, for instance, of a poor crop of wool, we should have, instead of 20 yards of linen = 1 coat, 20 yards of linen = 1/2 coat. If, on the other hand, the value of the coat sinks by one half, then 20 yards of linen = 2 coats. Hence, if the value of commodity *A* remains constant, its relative value, as expressed in commodity *B*, rises and falls in inverse relation to the change in the value of *B*.

↑ Unlike the effects of changes in the value of the linen, the effects of changes in the value of coats is no longer plausible from the individual point of view of the linen weaver. Since the coat still has the same use-value, and linen still takes her the same amount of labor to produce, why should she give now suddenly more linen to get a coat? This is one of the reasons (if I understand him right) why Marx later says that the equivalent form is not an expression of the quantity of the value of the coat. But right now Marx is not discussing this at all. He just assumes that the relative form of value is indeed also a quantitative expression of the value of the linen, but he shows that the value changes of the coat are not very well expressed. For instance, this expression does not distinguish between the following two completely different value changes:

64:2 If we compare the different cases examined under headings I and II, it emerges that the same change in the magnitude of relative value may arise from entirely opposed causes. Thus the equation 20 yards of

68:2 II. Der Wert der Leinwand bleibe konstant, während der Rockwert wechsle. Verdoppelt sich unter diesen Umständen die zur Produktion des Rockes notwendige Arbeitszeit, etwa infolge ungünstiger Wollschur, so haben wir statt 20 Ellen Leinwand = 1 Rock jetzt: 20 Ellen Leinwand = 1/2 Rock. Fällt dagegen der Wert des Rockes um die Hälfte, so 20 Ellen Leinwand = 2 Röcke. Bei gleichbleibendem Wert der Ware *A* fällt oder steigt daher ihr relativer, in der Ware *B* ausgedrückter Wert im umgekehrten Verhältnis zum Wertwechsel von *B*.

68:3 Vergleicht man die verschiedenen Fälle sub I und II, so ergibt sich, daß derselbe Größenwechsel des relativen Werts aus ganz entgegengesetzten Ursachen entspringen kann. So wird aus 20 Ellen Leinwand

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linen = 1 coat becomes 20 yards of linen = 2 coats, either because the value of the linen has doubled or because the value of the coat has fallen by one half, and it becomes yards of linen = 1/2 coat, either because the value of the linen has fallen by one half, or because the value of the coat has doubled.

= 1 Rock: 1. die Gleichung 20 Ellen Leinwand = 2 Röcke, entweder weil der Wert der Leinwand sich verdoppelt oder der Wert der Röcke um die Hälfte fällt, und 2. die Gleichung 20 Ellen Leinwand = 1/2 Rock, entweder weil der Wert der Leinwand um die Hälfte sinkt oder der Wert des Rockes auf das Doppelte steigt.

Since these different mechanisms yield the same outcome, it is also possible that they cancel each other out.

64:3 III. Let the quantities of labor necessary for the production of the linen and the coat vary simultaneously in the same direction and the same proportion. In this case, 20 yards of linen = 1 coat, as before, whatever change may have taken place in their respective values. Their change of value is revealed only when they are compared with a third commodity, whose value has remained constant. If the values of all commodities rose or fell simultaneously, and in the same proportion, their relative values would remain unaltered. The change in their real values would be manifested by an increase or decrease in the quantity of commodities produced within the same labor-time.

68:4/o III. Die zur Produktion von Leinwand und Rock notwendigen Arbeitsquanta mögen gleichzeitig, in derselben Richtung und derselben Proportion wechseln. In diesem Falle nach wie vor 20 Ellen Leinwand = 1 Rock, wie immer ihre Werte verändert seien. Man entdeckt ihren Wertwechsel, sobald man sie mit einer dritten Ware vergleicht, deren Wert konstant blieb. Stiegen oder fielen die Werte aller Waren gleichzeitig und in derselben Proportion, so würden ihre relativen Werte unverändert bleiben. Ihren wirklichen Wertwechsel ersähe man daraus, daß in derselben Arbeitszeit nun allgemein ein größeres oder kleineres Warenquantum als vorher geliefert würde.

↑ Note Marx's use of the word "reveal" (in German he uses "discover") and "manifest" (because we are talking about an expression). Marx will say later that this may be an advantage, since it leaves prices stable when productivity increases on all sides uniformly. ↓ All other cases can be reduced to those already discussed:

64:4 IV. The labor-times necessary for the production respectively of linen and coat, and hence the values of linen and coat, may vary simultaneously in the same direction but to an unequal degree, or in opposite directions, and so on. The influence of all possible combinations of this kind on the relative value of a commodity can be worked out simply by applying cases I, II and III.

69:1 IV. Die zur Produktion von Leinwand und Rock resp. notwendigen Arbeitszeiten, und daher ihre Werte, mögen gleichzeitig in derselben Richtung wechseln, aber in ungleichem Grad, oder in entgegengesetzter Richtung usw. Der Einfluß aller möglichen derartigen Kombinationen auf den relativen Wert einer Ware ergibt sich einfach durch Anwendung der Fälle I, II und III.

Summary: Value changes *are* an expression of changes in productivity, but Marx emphasizes how *incomplete* this expression is. It is neither unequivocal nor exhaustive.

65:1 Thus real changes in the magnitude of value are reflected neither unequivocally nor exhaustively in their relative expression, or, in other words, in the magnitude of the

69:2 Wirkliche Wechsel der Wertgröße spiegeln sich also weder unzweideutig noch erschöpfend wider in ihrem relativen Ausdruck oder in der Größe des relativen Werts.

relative value. The relative value of a commodity may vary, although its value remains constant. Its relative value may remain constant, although its value varies; and finally, simultaneous variations in the magnitude of its value and in the relative expression of that magnitude do not by any means have to correspond at all points.²⁰

Der relative Wert einer Ware kann wechseln, obgleich ihr Wert konstant bleibt. Ihr relativer Wert kann konstant bleiben, obgleich ihr Wert wechselt, und endlich brauchen gleichzeitige Wechsel in ihrer Wertgröße und im relativen Ausdruck dieser Wertgröße sich keineswegs zu decken.²⁰

Exam Question 267 Give examples illustrating Marx's remark that the relative form of value expresses the magnitude of value "neither unequivocally nor exhaustively."

Without calling them "defects," Marx is pointing out here some defects in the Simple form of value. It will be interesting to see to what extent the higher forms of value remedy these defects, and to what extent they preserve them.

Marx's simple if somewhat tedious exercise about how certain common changes in production are reflected on the surface can be seen part of an important leitmotif permeating Marx's discussion, namely, his critique of empiricism. Here, as on various other places, Marx shows how the empirical facts may give misleading information about what is really going on.

Question 268 Are there other undercurrents or leitmotifs in Marx's discussion other than his critique of empiricism?

On the other hand, these comparative increases in productivity are also a potentially important economic issue. Marx remarked in his early 1850–51 notebooks, written while he worked through Ricardo:

Were this [namely, a rise in productivity] to happen equally in all industries, then values would not change, and the spur for capitalism would fall away.

Presumably, Marx wrote this before he had worked out the concept of "relative surplus-value" which shows that capitalism does indeed benefit from generalized rises in productivity. The mature Marx makes related remarks in the section about crises in *Theories 2* [mecw32]161:1, that overproduction without disproportionality would not be overproduction.

The footnote gives a critique of the literature.

²⁰ This lack of congruence between the magnitude of value and its relative expression has been exploited by the vulgar economists with customary ingenuity. For example: "Once admit that A falls, because B, with which it is exchanged, rises, while no less labor is bestowed in the meantime on A, and your general principle of value falls to the ground ... If he [Ricardo] allowed that when A rises in value relatively to B, B falls in value relatively to A, he cut away the ground on which he rested his grand proposition, that the value of a commodity is ever determined by the labor embodied in it, for if a change in

²⁰ Note zur 2. Ausg. Diese Inkongruenz zwischen der Wertgröße und ihrem relativen Ausdruck ist von der Vulgärökonomie mit gewohntem Scharfsinn ausgebeutet worden. Z.B.: „Gebt einmal zu, daß A fällt, weil B, womit es ausgetauscht wird, steigt, obgleich unterdessen nicht weniger Arbeit auf A verausgabt wird, und euer allgemeines Wertprinzip fällt zu Boden ... Wenn zugegeben wird, daß, weil der Wert von A relativ zu B steigt, der Wert von B relativ zu A fällt, ist der Grund unter den Füßen weggeschnitten, worauf Ricardo seinen großen Satz aufstellt, daß der Wert einer Ware stets bestimmt ist durch das

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the cost of *A* alters not only its own value in relation to *B*, for which it is exchanged, but also the value of *B* relatively to that of *A*, though no change has taken place in the quantity of labor to produce *B*, then not only the doctrine falls to the ground which asserts that the quantity of labor bestowed on an article regulates its value, but also that which affirms the cost of an article to regulate its value' (J. Broadhurst, *Political Economy*, London, 1842, pp. 11 and 14).

Quantum der ihr einverleibten Arbeit; denn wenn ein Wechsel in den Kosten von *A* nicht nur seinen eignen Wert im Verhältnis zu *B*, womit es ausgetauscht wird, verändert, sondern auch den Wert von *B* relativ zu dem von *A*, obgleich kein Wechsel stattgefunden hat in dem zur Produktion von *B* erheischten Arbeitsquantum, dann fällt nicht nur die Doktrin zu Boden, die versichert, daß die auf einen Artikel verausgabte Quantität Arbeit seinen Wert reguliert, sondern auch die Doktrin, daß die Produktionskosten eines Artikels seinen Wert regulieren.“ (J. Broadhurst, „*Political Economy*“, London 1842, p. 11, 14.)

Marx explains his use of the term “vulgar economists” in section 1.4 of this chapter, footnote 32 to paragraph 91:1/o. The footnote continues:

^{20 ctd} Mr. Broadhurst might just as well say: consider the fractions 10/20, 10/50, 10/100 etc. The number 10 remains unchanged, and yet its proportional magnitude, its magnitude in relation to the numbers 20, 50, 100 continually diminishes. Therefore, the great principle that the magnitude of a whole number, such as 10, is ‘regulated’ by the number of times the number 1 is contained in it falls to the ground.

^{20 ctd} Herr Broadhurst könnte ebensogut sagen: Man sehe sich einmal die Zahlenverhältnisse 10/20, 10/50, 10/100 usw. an. Die Zahl 10 bleibt unverändert, und dennoch nimmt ihre proportionelle Größe, ihre Größe relativ zu den Nenner 20, 50, 100, beständig ab. Also fällt das große Prinzip zu Boden, daß die Größe einer ganzen Zahl wie 10 z.B. durch die Anzahl der in ihr enthaltenen Einer „reguliert“ ist.

The Equivalent Form

As the forms of value evolve, the commodity in the relative form of value is able to express its value better and better. As if made visible through an X-ray camera, the hidden relations of production project themselves onto the surface and in this way guide individual activity. Marx used the metaphor that the commodities themselves tell us through their relations what we had to unearth tediously in our scientific investigation of the essence of value. As Hegel said, “essence must appear,” and it does appear.

The commodity in the equivalent form, by contrast, is moving into the opposite direction. The linen weaver’s offer gives the value of the coat a form as well. But instead of revealing the essence of value on the surface, this form of value disguises and mystifies the essence of the coat’s value. This will be discussed now.

65:2 We have seen: if commodity *A* (the linen) expresses its value in the use-value of a different commodity *B* (the coat), it impresses upon the latter a peculiar form of value of its own, namely that of the equivalent.

70:1 Man hat gesehen: Indem eine Ware *A* (die Leinwand) ihren Wert im Gebrauchswert einer verschiedenartigen Ware *B* (dem Rock) ausdrückt, drückt sie letzterer selbst eine eigentümliche Wertform auf, die des Äquivalents.

Fowkes’s translation “impresses upon the latter a form of value peculiar to it” is unfortunate. It is a peculiar form of value, but not a

form of value peculiar to the coat. My “of its own” is an attempt to translate *selbst*: not only the linen has a form of value, but through

the activity of the linen the coat obtains its own form of value too.

↑ Marx had already announced in 58:5/o that the expression of the value of the linen in the coat has two poles, the relative form of value and the equivalent form of value. Then in

60:2 Marx had characterized the equivalent form as follows: the linen weaver's offer turns the coat into a form of existence of value, an embodiment of value (*Wertding*). ↓ In the next sentence, Marx does not use the word "*Wertding*" but redescribes the action of the linen in such a way that the reader can infer from it what this means for the coat:

The commodity linen manifests its own value-being through the fact that the coat, without having to assume a form of value distinct from its own bodily form, counts as its equal.

Die Leinwandware bringt ihr eignes Wertsein dadurch zum Vorschein, daß ihr der Rock, ohne Annahme einer von seiner Körperform verschiedenen Wertform, gleichgilt.

↑ Being values, coat and linen have an equal substance—the value quasi-material. The linen *expresses* the invisible fact that it and the coat contain an equal substance by offering itself as an equal to the coat in its ordinary existence. (This is what Marx earlier had described as: the coat becomes an embodiment of value.) The important implication for the coat is that the coat does not need to assume a special form in order to be able to refer to the linen as value, but the coat can do this as a coat. The coat does not have to prove that it is socially needed, but it is in the privileged position of being accepted as is:

The linen therefore indeed expresses its own value-being by the direct exchangeability of the coat for linen.

Die Leinwand drückt also in der Tat ihr eignes Wertsein dadurch aus, daß der Rock unmittelbar mit ihr austauschbar ist.

↑ Marx says "indeed" (*in der Tat*) because the equivalent form, the privileged relation in which the coat finds itself, results from the surface activity (the deed) of the linen.

The equivalent form of a commodity is consequently the form of being directly exchangeable with some other commodity.

Die Äquivalentform einer Ware ist folglich die Form ihrer unmittelbaren Austauschbarkeit mit anderer Ware.

In other words, for the linen, coats are like money. Coats will always be accepted in the exchange against linen. If someone offers coats for linen, the linen weaver will not say: "sorry, I don't need a coat right now, I rather have a bathing suit."

This is a step towards solving the "riddle of money," i.e., towards explaining why money is accepted in exchange for everything. This miraculous property of money is a form of value. It does not come from a special value of money which other commodities lack. Rather, the value of the equivalent (money) is of the same nature as the value of any other good. It merely has a different *form*. Money does not receive this form through its own power, but through the activity of all the ordinary commodities.

Question 269 Why is a commodity in the equivalent form directly exchangeable with the commodity in the relative value form? (Also define what it means to be directly exchangeable.) 2007SP, 2004fa, 2001fa, 1998WI, 1997ut, 1995WI.

[Equivalent Form has No Quantitative Determination] There is no need to discuss the *quality* of the equivalent form—it is the natural form of the commodity—therefore Marx immediately goes over to the *quantitative* aspect.

66:1 If one kind of commodity, such as coats, serves as the equivalent of another, such as linen, and coats therefore acquire the characteristic property of being in the form of direct exchangeability with linen, this does not mean that the proportion is

70:2 Wenn eine Warenart, wie Röcke, einer andren Warenart, wie Leinwand, zum Äquivalent dient, Röcke daher die charakteristische Eigenschaft erhalten, sich in unmittelbar austauschbarer Form mit Leinwand zu befinden, so ist damit in keiner Weise die

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given in which the two are exchangeable.

Proportion gegeben, worin Röcke und Leinwand austauschbar sind.

Fowkes's "provides *us* with the proportion" (my emphasis) is another instance of a misplaced transposition of Marx's statement

about social facts themselves into a statement about how we are exploring these social facts here. I.e., although Marx did not

commit the epistemic fallacy, the translation builds it in afterwards.

↑ If the linen weaver offers to exchange 20 yards of linen for a coat, this places the coat into a privileged position. The coat can decide whether it wants to remain coat or whether it wants to turn itself into linen. But this privilege does not allow the coat to decide how much linen it will become.

↓ The linen weaver does not decide this either, but the exchange proportion between coat and linen are a social given ultimately determined by the socially necessary labor in coat and linen:

Since the magnitude of the value of the linen is given, this proportion depends on the magnitude of the value of the coat. Whether the coat is expressed as the equivalent and the linen as relative value, or, inversely, the linen is expressed as equivalent and the coat as relative value, the magnitude of the coat's value is determined, as ever, by the labor-time necessary for its production, therefore it is independent of the form of the coat's value.

Sie hängt, da die Wertgröße der Leinwand gegeben ist, von der Wertgröße der Röcke ab. Ob der Rock als Äquivalent und die Leinwand als relativer Wert oder umgekehrt die Leinwand als Äquivalent und der Rock als relativer Wert ausgedrückt sei, seine Wertgröße bleibt nach wie vor durch die zu seiner Produktion notwendige Arbeitszeit, also unabhängig von seiner Wertform bestimmt.

↑ This allows us to repeat a clarification which was made earlier in the Annotations (see our remarks about the word "presuppose" in 63:2 and also earlier remarks), but which was not made explicit in Marx's text until here. The Simple form of value, 20 yards of linen is worth 1 coat, is not an expression of the value of the linen because the weaver decides how much linen to give for the coat. It is an expression of the value of the linen because the linen weaver, who knows that the socially determined exchange relation between coat and linen is 20 yards for 1 coat, is willing to carry out this exchange. What are her alternatives, if the coat is too expensive? She may leave her need or want unfulfilled, or she may try to meet it with other commodities (sweater instead of coat) or, if she can no longer satisfy her needs through the production of linen, she can switch to producing something different than linen. These changes in quantities demanded and supplied will then lead to price changes and ultimately adjust prices so that they become proportional to socially necessary labor times. But Marx assumes here that the individual producers and consumers can only make quantity decisions, they cannot set prices. Marx assumes here, as always in *Capital I*, that all these adjustments have been made and commodities are traded at their values.

Question 270 *In his discussion of the quantitative aspect of the equivalent form in 147:2, Marx considers the magnitude of the value of linen as given. Can this be justified, and if so, how?*

↓ But although the value of coats, together with the value of linen, determines this exchange relationship, the quantities which the coat in the equivalent form can fetch are not an *expression* of the value of the coat:

But when the coats assume the place of the equivalent in the value expression, the magnitude of their values fails to be expressed as magnitude of value. Rather, coats figure in the value equation merely as specific quantities of a certain thing.

Aber sobald die Warenart Rock im Wertausdruck die Stelle des Äquivalents einnimmt, erhält ihre Wertgröße keinen Ausdruck als Wertgröße. Sie figuriert in der Wertgleichung vielmehr nur als bestimmtes Quantum einer Sache.

The magnitude of the coat's value is not *expressed* in the equation "20 yards of linen are worth 1 coat" because the linen weaver does not compare the value of the linen with the *value* of the coat. Instead, she bases her trading decision on whether the *use-value* of the coat seems worth the effort she put into making the amount of linen which the market forces her to pay for the coat.

Question 271 *The relationship "20 yards of linen are worth 1 coat" says that 20 yards of linen have the same value as 1 coat, but it says nothing about the value of the coat itself. Right or wrong?* 2009fa, 2007fa, 2005fa, 2004fa.

Question 273 *Can it be called a defect of the equivalent form that the magnitude of value of the coat is not expressed when the coat is in the equivalent form, only when the coat is in the relative form?* 2012fa.

The claim that the exchange proportion depends on the value of the coat but is not an expression of the value of the coat needs more clarification. In the next paragraph, Marx deals with a possible objection. The equivalent form of value specifies the quantity of coats: 20 yards of linen are not worth 2 or 5 coats, they are worth 1 coat. And if the value of the coat would fall in half, then they would be worth 2 coats. Does this not mean that the quantity of coats is an expression of the quantity of the value of the coats? Marx gives a two-pronged but rather abstract argument to refute this:

↓ (1) Coats figure in this relationship only as quantities of a certain thing, not as quantities of value:

66:2 For instance, 40 yards of linen are 'worth'—what? 2 coats. Because coats play here the role of equivalent, i.e., the use-value "coat" counts as the embodiment of value vis-à-vis the linen, a certain number of coats is sufficient to express the value of a given quantity of linen.

70:3 Z.B.: 40 Ellen Leinwand sind „wert“—was? 2 Röcke. Weil die Warenart Rock hier die Rolle des Äquivalents spielt, der Gebrauchswert Rock der Leinwand gegenüber als Wertkörper gilt, genügt auch ein bestimmtes Quantum Röcke, um ein bestimmtes Wertquantum Leinwand auszudrücken.

↓ (2) The assumption that the quantity of coats in the equation "20 yards of linen is 1 coat" expresses the value of the coat amounts to the assumption, refuted earlier, that a commodity can express its value in its own use-value:

Two coats can therefore express the magnitude of value of 40 yards of linen, but they can never express the magnitude of their own value, the magnitude of the value of coats.

Zwei Röcke können daher die Wertgröße von 40 Ellen Leinwand, aber sie können nie ihre eigne Wertgröße, die Wertgröße von Röcken, ausdrücken.

At the end, a very brief remark about the literature.

Because of their superficial reception of this fact—that in the equation of value the equiv-

Die oberflächliche Auffassung dieser Tatsache, daß das Äquivalent in der Wertglei-

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alent always has the form of a simple quantity of some article, of a use-value—Bailey and many of his predecessors and followers were misled into considering the expression of value as a merely quantitative relation. Rather, the equivalent form of a commodity does not contain any quantitative determination of value at all.

chung stets nur die Form eines einfachen Quantums einer Sache, eines Gebrauchswertes, besitzt, hat Bailey, wie viele seiner Vorgänger und Nachfolger, verleitet, im Wertausdruck ein nur quantitatives Verhältnis zu sehn. Die Äquivalentform einer Ware enthält vielmehr keine quantitative Wertbestimmung.

Fowkes translates *vielmehr* with “in fact” here; but Marx has a

secret meaning for “in fact” (*in der Tat*), see the comments to 65:2,

therefore the word “in fact” should be reserved for this meaning only.

The lack of a quantitative determination of value in the equivalent form will come up again when Marx discusses the difference between standard of prices and measure of value.

It can also become practically significant in the following situations:

When e.g. cattle was the general equivalent, the market determined the proportions of all other goods according to the needs of society, but the market did not signal whether or not there were too many cattle produced. This probably did not matter since these societies were such that one could always find uses for cattle.

But in *Grundrisse* Marx tells the story of a medieval village which ended up with not enough food because they found gold and everybody was digging for gold. Under the gold standard, the global scarcity of gold prevented such overproduction (but look at the gold rushes when new gold resources were discovered).

This lack of good market remedies when there is too much or too little money, gave banks such a strong competitive position (they were able to bring the whole economy to its knees just to make a few dollars profit) that they had to be regulated by the state. This regulation led to the gradual replacement of the gold standard by a standard set by monetary policy—something which would not have been possible had the equivalent form contained a quantitative determination of value.

Today we are also witnessing a situation in which Marx’s subtle insight becomes relevant: US economic policy is obviously debasing the US currency, but there is no inflation because the equivalent form of value does not contain a quantitative determination of the value of the dollar.

[Digression: Expression of Magnitude in Relative and Equivalent Form] Marx says that the exchange proportions are determined independent of the forms, that the relative form of value is an (albeit imperfect) *expression* of the magnitude of the value of the linen, and that the equivalent form of value is not an expression of the value of the coat at all. Perhaps it is easier to follow Marx’s argument at this point if we look at a change in the exchange proportion between coat and linen. Assume the value of the linen falls. The linen weaver is using a more efficient method and can produce more linen per hour. Then she should also be willing to offer more linen in exchange for the coat. This is why it is right to say that the exchange proportion is an expression of the magnitude of the value of the linen.

Now assume that for some reason the production of coats requires more labor, although the use-value remains the same. Since the use-value remains the same, the calculation of the linen weaver, who weighs this use-value against the time needed to produce linen, also remains unchanged. This is why it is right to say that the exchange proportion is not an expression of the magnitude of the value of the coat.

But something else happens if the coats require more labor. There will no longer be enough tailors who are willing to give coats away for 20 yards of linen, and therefore the socially given exchange proportion between coats and linen will change: linen weavers everywhere will have to pay more linen for a coat. This price change is not due to the linen weaver in any way expressing the magnitude of the value of the coat. It is due to tailors expressing the magnitude of the values of their own products, and it is forced on the linen weaver by the market. Of course, fewer linen weavers will go along with the trade at this less favorable proportion; but the number of linen weavers agreeing to this trade is an expression of the magnitude of the value of linen, not of the magnitude of the value of the coat. This is an attempt to explain the seeming paradox that the exchange proportion agreed to by the linen weaver *depends* on the magnitude of the value of coats, but the linen weaver's agreement is not an *expression* of the magnitude of the value of coats.

[The First Peculiarity of the Equivalent Form] The remainder of the discussion of the equivalent form is structured around three peculiarities of the equivalent form. Marx introduces the first peculiarity without any transition or preparation of the reader:

66:3 The first peculiarity which strikes us when we consider the equivalent form is this, that use-value becomes the form of appearance of its opposite, value.

70:4 Die erste Eigentümlichkeit, die bei Betrachtung der Äquivalentform auffällt, ist diese: Gebrauchswert wird zur Erscheinungsform seines Gegenteils, des Werts.

The first peculiarity is not the most basic, but the most obvious of the three.

66:4 The natural form of the commodity becomes form of value. But, note well, this reversal happens for commodity *B* (coat, or maize, or iron, etc.) only if some arbitrary other commodity *A* (linen etc.) enters into a value relation with it, and this reversal holds only within this relation.

71:1 Die Naturalform der Ware wird zur Wertform. Aber, nota bene, dies Quidproquo ereignet sich für eine Ware *B* (Rock oder Weizen oder Eisen usw.) nur innerhalb des Wertverhältnisses, worin eine beliebige andre Ware *A* (Leinwand etc.) zu ihr tritt, nur innerhalb dieser Beziehung.

↑ It is obvious that the coat acquires the magical ability to turn itself, by exchange, into linen only because the linen weaver has offered to exchange linen for coat. Marx stresses this obvious fact here (after already having taken the trouble, in 61:2, of mentioning it without emphasizing it), because in the more developed form of this same social relation on the surface of the economy, the dependence on the activity of the commodity in relative form is no longer obvious. Once the Simple equivalent has become General equivalent, and after the General equivalent has once and for all been amalgamated with one use-value, gold, gold has amazing social powers just because it is gold, because of its use-value. Gold has this social power because society has selected gold as the general equivalent. The ultimate origin of this power, the fact that any equivalent is equivalent only through the initiative of the commodities in the relative form of value, is no longer recognizable. Marx calls this the “solidification of a false semblance” (*Befestigung eines falschen Scheins*), see for instance in the First edition [megaII/5]34:0, where he says that in the Simple equivalent the false semblance has not yet been solidified. “False Semblances” is not an epistemological category, Marx is not talking about correct or incorrect theories, but one might say the surface relations themselves are lying about it where they come from. This is why the agents in a capitalist society cannot get insights into the true nature of their social relations through spontaneous learning. Science is necessary to penetrate these false appearances.

Since a commodity cannot relate to itself as equivalent, and therefore cannot make its

Da keine Ware sich auf sich selbst als Äquivalent beziehen, also auch nicht ihre eig-

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own physical skin into the expression of its own value, it must relate to another commodity as equivalent, and therefore must make the physical skin of another commodity into its own value form.

↑ Instead of his usual metaphor body versus soul, Marx uses here the different metaphor skin versus muscles and bones. ↓ In the next paragraph, yet another metaphor will be introduced: expressing the value of linen in a coat is analogous to expressing the mass of a sugar-loaf in the iron weights which counterbalance it on a scale.

ne Naturalhaut zum Ausdruck ihres eignen Werts machen kann, muß sie sich auf andre Ware als Äquivalent beziehen oder die Naturalhaut einer andren Ware zu ihrer eignen Wertform machen.

66:5/o Let us make this clear with the example of a measure which belongs to commodities as material objects, i.e. as use-values. A sugar-loaf, because it is a body, consists of heavy matter and therefore has a weight, but one can neither see this weight nor touch it.

71:2 Dies veranschauliche uns das Beispiel eines Maßes, welches den Warenkörpern als Warenkörpern zukommt, d.h. als Gebrauchswerten. Ein Zuckerhut, weil Körper, ist schwer und hat daher Gewicht, aber man kann keinem Zuckerhut sein Gewicht ansehen oder anfühlen.

[Analogy of the Sugar Loaf] Marx distinguishes here between “*Schwere*” (translated here with “heavy matter”) and “*Gewicht*” (translated with “weight”). “Heavy matter” is the underlying concept: it is what physicists call “mass.” Masses attract each other. The force with which a body of heavy matter is attracted by the earth is called its “weight.” This weight is a form of appearance of the heavy matter of a body. But in the passage under discussion, “weight” is not only used to denote this form of appearance, but also that what becomes measurable through this form of appearance, namely, the magnitude of the heavy matter of a given body. So far, modern physics agrees with Marx’s intuitions.

We then take various pieces of iron, whose weight has been determined beforehand. The bodily form of the iron, considered for itself, is no more the form of appearance of heavy matter than is the bodily form of the sugarloaf.

Wir nehmen nun verschiedene Stücke Eisen, deren Gewicht vorher bestimmt ist. Die Körperform des Eisens, für sich betrachtet, ist ebensowenig Erscheinungsform der Schwere als die des Zuckerhuts.

↑ We can make sense of this last sentence and the argument to follow if we assume that Marx thinks heavy matter is some kind of chemical ingredient in every material body—similar to phlogiston, an ingredient which some physicists believed represented the heat in the body. Let’s call the ingredient making the bodies heavy “massiton.” Massiton is invisible and cannot be felt from the texture of the body, but other bodies can sense it because they also contain massiton. Iron, regarded in isolation, is just as different from pure massiton as the sugarloaf, regarded in isolation. ↓ But if iron is placed in a weight relation with the sugar loaf, it counts as pure massiton representing the massiton in the sugar loaf. Instead of “pure massiton” Marx uses the phrase “heavy matter pure and simple” (*bloße Schwergestalt*).

↓ The next step in the argument is: If the need arises to “express” the massiton in the sugar-loaf, for instance because one wants to buy the sugar or use it in a recipe and therefore needs to know how much sugar it contains, one places the sugar loaf on a scale and looks how much iron is necessary to counterbalance it—despite the fact that iron, by itself, is no better incarnation of massiton than the sugar-loaf.

Nevertheless, in order to express the sugarloaf as heavy matter, we place it into a

Dennoch, um den Zuckerhut als Schwere auszudrücken, setzen wir ihn in ein Ge-

weight relation with the iron. In this relation, the iron counts as a body representing nothing but heavy matter. Quantities of iron therefore serve to measure the weight of the sugar and represent, in relation to the sugar-loaf, heavy matter pure and simple, the incarnation of heavy matter.

For this to work, (1) both objects must contain massiton and (2) must enter a relation which allows the massiton in the sugar loaf to interact with the massiton in the iron. ↓ Marx reiterates these two conditions, first (2) then (1):

This part is played by the iron only within this relation, i.e. within the relation into which the sugar, or any other body whose weight is to be found, enters with the iron. If both objects lacked heavy matter, they could not enter into this relation, hence the one could not serve to express the heavy matter of the other.

↓ At the end is Marx's proof that both objects contain massiton: this is shown by their equal quality when placed on a scale.

If we place both of them on the scales, we see in actuality that as heavy matter they are one and the same, and therefore that, taken in the appropriate proportions, they have the same weight.

↑ This is not a full proof. Had Marx been a physicist, he would also have looked for independent confirmation that massiton exists. He made this independent confirmation of the substance of value, when he showed that qua abstract labor all labor processes indeed have something in common. ↓ Next, Marx discusses the analogy between his weight example and the commodities:

Just as the bodily form of the iron, as a measure of weight, represents nothing but heavy matter towards the sugar-loaf, so, in our expression of value, the bodily form of the coat represents nothing but value towards the linen.

↓ After the analogies, Marx also mentions the disanalogies:

67:1 Here, however, the analogy ceases. In the weight expression of the sugar-loaf, the iron represents a natural property common to both bodies, their heavy matter; but in the value expression of the linen, the coat represents a supra-natural property: their value, which is something purely social.

wichtsverhältnis zum Eisen. In diesem Verhältnis gilt das Eisen als ein Körper, der nichts darstellt außer Schwere. Eisenquanta dienen daher zum Gewichtsmaß des Zuckers und repräsentieren dem Zuckerkörper gegenüber bloße Schwergestalt, Erscheinungsform von Schwere.

Diese Rolle spielt das Eisen nur innerhalb dieses Verhältnisses, worin der Zucker oder irgendein anderer Körper, dessen Gewicht gefunden werden soll, zu ihm tritt. Wären beide Dinge nicht schwer, so könnten sie nicht in dieses Verhältnis treten und das eine daher nicht zum Ausdruck der Schwere des andren dienen.

Werfen wir beide auf die Waagschale, so sehn wir in der Tat, daß sie als Schwere dasselbe, und daher in bestimmter Proportion auch von demselben Gewicht sind.

Wie der Eisenkörper als Gewichtsmaß dem Zuckerhut gegenüber nur Schwere, so vertritt in unsrem Wertausdruck der Rockkörper der Leinwand gegenüber nur Wert.

71:3 Hier hört jedoch die Analogie auf. Das Eisen vertritt im Gewichts Ausdruck des Zuckerhuts eine beiden Körpern gemeinsame Natureigenschaft, ihre Schwere, während der Rock im Wertausdruck der Leinwand eine übernatürliche Eigenschaft beider Dinge vertritt: ihren Wert, etwas rein Gesellschaftliches.

↑ The difference is that massiton is natural while the value quasi-material is social. Remember that "social" not merely means, involving an interaction between different people.

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The phrase “something purely social” does not mean: arising from the individual dispositions (preferences) of the economic agents, but it arises from the invisible production constraints which bind these people together in a society.

But both value and heaviness are, in Marx’s eyes, relative: Just as a coat cannot have value outside a social system which produces many commodities, Marx thinks that material bodies have masses only in relation with each other. The following paragraph from [megaII/6]32:1 interprets “*Schwere*” as something which is in truth relative, although it is assigned to the solitary body:

If I say for instance that the rock is heavy, *I express* heaviness as a property which can be attributed to the rock considered in isolation. In fact, however, its heaviness is a bodily property which it only possesses in relation to other bodies. The expression, while not saying anything about this relation, implies it.

Sage ich z.B. der Stein ist schwer, so *drücke ich* Schwere als eine Eigenschaft aus, die dem Stein isolirt für sich betrachtet, zukommt. In der That ist aber seine Schwere eine körperliche Eigenschaft, die er nur besitzt im Verhältniß zu andren Körpern. Der Ausdruck, obgleich er nichts von diesem Verhältniß sagt, schließt es ein.

Marx’s reasoning was, presumably, that something which has a relative expression (the famous instantaneous action at a distance represented by the Newtonian law of mass attraction), it must itself be relative. This contradicts classical mechanics which deals with autonomous mass points, but it is vindicated in the the general theory of relativity, which identifies heavy matter as curvature in space. (This latter theory also explains the other form of appearance of heavy matter overlooked by Marx: mass not only manifests itself in the force of gravity but also in its resistance to acceleration.) Marx’s mistake was therefore to interpret the communality of sugar loaf and iron weights as some chemical ingredient instead of their joint embeddedness in higher-dimensional space-time. Bailey’s counterexample with a distance, which Marx countered correctly, would have been a better analogy to the relation between sugar-loaf and iron weights than the value relation itself.

Question 277 *Was Marx’s physics of the law of gravity wrong, and what does this say about his economics?*

There is another difference between this physics example and the economy, which Marx does not mention here: the law of gravity continues to function whether or not it expresses itself to the humans, while the law of value needs this expression in order to function.

Question 278 *What are the limits of the analogy with the sugar loaf? (Describe this analogy) 2005fa.*

[Social Origin of Equivalent Form Not Visible] ↓ The limits of the analogy with the sugar-loaf give a fitting transition to Marx’s next topic: The equivalent form does *not* express that value is something social, the relative form *does* express it.

67:2/o The relative value form of a commodity, of the linen for example, expresses the value-being of the linen as something quite different from its body and bodily properties, namely, for example, as something which looks like a coat. This expression itself indicates that it conceals a social

71:4/o Indem die relative Wertform einer Ware, z.B. der Leinwand, ihr Wertsein als etwas von ihrem Körper und seinen Eigenschaften durchaus Unterschiedenes ausdrückt, z.B. als Rockgleiches, deutet dieser Ausdruck selbst an, daß er ein gesellschaftliches Verhältniß verbirgt. Umgekehrt mit

relation. Not so with the equivalent form, in which the body of the commodity itself, here the coat, just as it is in everyday life, expresses value—as if its value form were given to it by nature.

der Äquivalentform. Sie besteht ja gerade darin, daß ein Warenkörper, wie der Rock, dies Ding wie es geht und steht, Wert ausdrückt, also von Natur Wertform besitzt.

↑ When Marx writes here that the expression “conceals” a social relation, this is to be understood in the meaning: the expression is a visible surface relationship behind which an invisible deeper social relation is concealed. The German word “*verbergen*” connotes “contain” as much as “conceal.”

The relative form of value itself gives an indication that it is the expression of a *social* relation, because it relates the linen to a different commodity, coat. Not so the equivalent form. It seems to be a natural property of the coat to be able to “buy” linen. Now one might object and argue: the exchangeability with linen does not seem a natural property of the coat, since the coat has this property only when placed in the value relation with the linen. Against this, Marx has an interesting and sophisticated argument:

Admittedly, this holds good only within the value relation, in which the commodity linen is related to the commodity coat as its equivalent.²¹ However, the properties of a thing do not arise from its relations to other things, they are, rather, merely activated by such relations. The coat, therefore, seems to have its equivalent form—its property of direct exchangeability—just as much from nature as its property of being heavy or its ability to keep us warm.

Zwar gilt dies nur innerhalb des Wertverhältnisses, worin die Leinwandware auf die Rockware als Äquivalent bezogen ist.²¹ Da aber Eigenschaften eines Dings nicht aus seinem Verhältnis zu andern Dingen entspringen, sich vielmehr in solchem Verhältnis nur betätigen, scheint auch der Rock seine Äquivalentform, seine Eigenschaft unmittelbarer Austauschbarkeit, ebenso sehr von Natur zu besitzen wie seine Eigenschaft, schwer zu sein oder warm zu halten.

The fact that the coat does not *always* have its direct exchangeability, but only when it is placed in the value relation, is still compatible with the false interpretation that the coat has its direct exchangeability by *nature*: Even truly natural properties of things, not conferred on the things by society but located in the things themselves, are only then activated, or only then manifest themselves, when the thing is placed in certain relations to other things.

The equivalent form of value is what Marx calls a “determination of reflection.” Being king is also a determination of reflection, and it is surrounded with similar mystifications as the value form:

²¹ Such determinations of reflection are altogether very curious. For instance, one man is king only because other men stand in the relation of subjects to him. They, however, think they are the subjects because he is king.

²¹ Es ist mit solchen Reflexionsbestimmungen überhaupt ein eigenes Ding. Dieser Mensch ist z.B. nur König, weil sich andre Menschen als Untertanen zu ihm verhalten. Sie glauben umgekehrt Untertanen zu sein, weil er König ist.

[Bourgeois Economists about the First Peculiarity] The discussion of the first peculiarity concludes with a critique of bourgeois economists. Their argument is: gold is nothing special, because in earlier times much more profane commodities played the same role. Marx shows that this argument does not prove what it purports to prove, by taking it one step further: the special element is already present in the exchange relation between *any* two commodities.

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Hence the mysteriousness of the equivalent form, which only impinges on the crude bourgeois vision of the political economist when it confronts him in its fully developed shape, that of money. He then seeks to explain away the mystical character of gold and silver by substituting less dazzling commodities for them and, with ever-renewed satisfaction, reeling off a catalogue of all the inferior commodities which have played the role of the equivalent at one time or another. He does not suspect that even the simplest expression of value, such as 20 yards of linen = 1 coat, already presents us with the riddle of the equivalent form.

Daher das Rätselhafte der Äquivalentform, das den bürgerlich rohen Blick des politischen Ökonomen erst schlägt, sobald diese Form ihm fertig gegenübertritt im Geld. Dann sucht er den mystischen Charakter von Gold und Silber wegzuerklären, indem er ihnen minder blendende Waren unterschiebt und mit stets erneutem Vergnügen den Katalog all des Warenpöbels ableiert, der seinerzeit die Rolle des Warenäquivalents gespielt hat. Er ahnt nicht, daß schon der einfachste Wertausdruck, wie 20 Ellen Leinwand = 1 Rock, das Rätsel der Äquivalentform zu lösen gibt.

[The Second Peculiarity of the Equivalent Form] The second peculiarity is that concrete labor is the expression of abstract labor.

68:1 The body of the commodity, which serves as the equivalent, always counts as the embodiment of abstract human labor, while it always is the product of some specific useful and concrete labor.

72:1 Der Körper der Ware, die zum Äquivalent dient, gilt stets als Verkörperung abstrakt menschlicher Arbeit und ist stets das Produkt einer bestimmten nützlichen, konkreten Arbeit.

Here Marx opposes “always counts” to “always is.” What does he mean by “counts”? There is a discrepancy between what the commodity is (physically) and what it counts as socially, between its physical existence and what it represents in the value relation. By “counts as the embodiment of abstract human labor,” Marx means: the tailor produces something which can not only be used as a garment, but which can also be exchanged. The tailoring labor makes more than just coats. The following sentence is the dialectical conclusion from the difference and unity of “counts” and “is” (becoming as the unity of being and not being): This concrete labor therefore becomes the expression of abstract human labor.

Diese konkrete Arbeit wird also zum Ausdruck abstrakt menschlicher Arbeit.

Next Marx points out the parallelism between commodities and the labor which produces them. Although we saw the peculiarity in the commodities first, this peculiarity of the commodities really stems from the peculiarity of the labors.

If the coat counts as realization of mere abstract human labor, the tailoring actually realized in it counts as the form in which mere abstract human labor realizes itself. In the expression of the value of the linen, the usefulness of tailoring consists, not in making clothes, and thus also people, but in making a physical object which we at once recognize as value, as a congealed quantity of labor, therefore, which is utterly indistinguishable from the labor objectified in the linen. In order to act as such a mirror of

Gilt der Rock z.B. als bloße Verwirklichung, so die Schneiderei, die sich tatsächlich in ihm verwirklicht, als bloße Verwirklichungsform abstrakt menschlicher Arbeit. Im Wertausdruck der Leinwand besteht die Nützlichkeit der Schneiderei nicht darin, daß sie Kleider, also auch Leute, sondern daß sie einen Körper macht, dem man es ansieht, daß er Wert ist, also Gallerte von Arbeit, die sich durchaus nicht unterscheidet von der im Leinwandwert vergegenständlichten Arbeit. Um solch einen Wertspie-

value, tailoring itself must reflect nothing other than its abstract quality of being human labor.

gel zu machen, muß die Schneiderei selbst nichts widerspiegeln außer ihrer abstrakten Eigenschaft, menschliche Arbeit zu sein.

The next paragraph is an important anticipation of the section about the Fetish-like character of the commodity:

68:2 In tailoring, as well as in weaving, human labor-power is expended. Both, therefore, possess the general property of being human labor, and there may be cases, such as the production of value, in which they must be considered only under this aspect.

72:2/o In der Form der Schneiderei wie in der Form der Weberei wird menschliche Arbeitskraft verausgabt. Beide besitzen daher die allgemeine Eigenschaft menschlicher Arbeit und mögen daher in bestimmten Fällen, z.B. bei der Wertproduktion, nur unter diesem Gesichtspunkt in Betracht kommen.

This translation was inspired by the French: "et dans certain cas ... on ne doit les considérer qu'à ce point de vue."

Marx calls this "not mysterious," anticipating the question he will ask on p. 82:2 in the section about the fetish-like character of the commodity:

There is nothing mysterious in this.

All das ist nicht mysteriös.

But this unmysterious fact is expressed in an inverted fashion:

But in the value expression of the commodity the matter is stood on its head. In order to express the fact that weaving, for instance, creates the value of linen through its general property of being human labor rather than in its concrete form as weaving, the concrete labor which produces the equivalent of the linen, namely tailoring, is placed in relation to it as the tangible form in which abstract human labor is actualized.

Aber im Wertausdruck der Ware wird die Sache verdreht. Um z.B. auszudrücken, daß das Weben nicht in seiner konkreten Form als Weben, sondern in seiner allgemeinen Eigenschaft als menschliche Arbeit den Leinwandwert bildet, wird ihm die Schneiderei, die konkrete Arbeit, die das Leinwand-Äquivalent produziert, gegenübergestellt als die handgreifliche Verwirklichungsform abstrakt menschlicher Arbeit.

That under certain circumstances labor counts as abstract labor is *not* mysterious; but that concrete labor becomes the expression of abstract labor, this is mysterious! As in section 4, Marx contrasts that what the commodities say with how they say it:

69:1 The equivalent form therefore possesses a second peculiarity: in it, concrete labor becomes the form of manifestation of its opposite, abstract human labor.

73:1 Es ist also eine zweite Eigentümlichkeit der Äquivalentform, daß konkrete Arbeit zur Erscheinungsform ihres Gegenteils, abstrakt menschlicher Arbeit wird.

↑ Marx announces only now that the three paragraphs we just read were a discussion of the second peculiarity. ↓ And he immediately rushes on to the third peculiarity.

69:2 Since, however, this concrete labor, tailoring, counts as merely the expression of homogeneous human labor, it takes the form of equality with other kinds of labor, such as the labor embodied in the

73:2 Indem aber diese konkrete Arbeit, die Schneiderei, als bloßer Ausdruck unterschiedsloser menschlicher Arbeit gilt, besitzt sie die Form der Gleichheit mit anderer Arbeit, der in der Leinwand steckenden

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linen. Although it is performed privately, like all other commodity-producing labor, it is nevertheless labor in an immediately social form. This is why it represents itself in a product which is directly exchangeable with other commodities.

Arbeit, und ist daher, obgleich Privatarbeit, wie alle andre, Waren produzierende Arbeit, dennoch Arbeit in unmittelbar gesellschaftlicher Form. Ebendeshalb stellt sie sich dar in einem Produkt, das unmittelbar austauschbar mit andrer Ware ist.

[The Third Peculiarity of the Equivalent Form] These two sentences have a convoluted grammatical structure. The argument presented is the following:

1. Concrete tailoring labor counts as the expression of abstract (Marx writes here “homogeneous” but this means the same) human labor (this is the second peculiarity).
2. As such abstract labor, tailoring is equal to all other labor and therefore also to the weaving labor.
3. Due to this equality, tailoring is labor in immediately social form, despite the fact that it is done privately. (This is what Marx is going to call the third peculiarity.)
4. (Marx is done with his derivation, but he makes one more step, anchoring a familiar empirical paradox in this third peculiarity:) Therefore the product of the private labor of tailoring, the coat, is directly exchangeable.

The next sentence identifies the third of these steps as the *third peculiarity* of the equivalent form: a privately produced commodity in equivalent form counts as its opposite, directly social labor. The manifestation of this paradox in the higher form of the general equivalent is a “riddle” familiar to everybody in a commodity society (assuming the gold standard): the private labor which produces gold has direct social powers, it is directly exchangeable for all other commodities. It is easy to see that this is peculiar.

Question 281 Write an essay carefully re-stating in your own words the different steps in the derivation of the third from the second peculiarity. 1997WI.

It is therefore a third peculiarity of the equivalent form that private labor becomes the form of its opposite, namely labor in immediately social form.

Es ist also eine dritte Eigentümlichkeit der Äquivalentform, daß Privatarbeit zur Form ihres Gegenteils wird, zu Arbeit in unmittelbar gesellschaftlicher Form.

Question 282 Repeat in your own words the three peculiarities of the equivalent form. 2007fa, 2004fa, 2001fa, 1998WI, 1997sp, 1996sp.

[Aristotle's Analysis of the Form of Value] In order to clarify the second and third peculiarities, Marx discusses next how Aristotle analyzed the form of value:

69:3 The two peculiarities of the equivalent form just developed here will become easier to grasp if we go back to that great researcher who was the first to analyse the value form, like so many other forms of thought, society and nature. I mean Aristotle.

73:3 Die beiden zuletzt entwickelten Eigentümlichkeiten der Äquivalentform werden noch faßbarer, wenn wir zu dem großen Forscher zurückgehn, der die Wertform, wie so viele Denkformen, Gesellschaftsformen und Naturformen zuerst analysiert hat. Es ist dies Aristoteles.

Moore and Aveling translate

"Forscher" as "thinker," Fowkes as "investigator."

↓ Unlike Marx, Aristotle begins with a money relationship, i.e., using Marx's example, a relationship of the form "20 yards of linen are worth 2 Pounds Sterling." But Aristotle's first observation is that this is essentially the same as "20 yards of linen are worth 1 coat."

69:4 In the first place, Aristotle states quite clearly that the Money form of the commodity is only a further development of the Simple form of value, i.e. of the expression of the value of a commodity in some other arbitrarily chosen commodity, for he says:

"5 beds = 1 house"

("Κλίναι πέντε ἀντὶ οἰκίας")

"does not differ" from

"5 beds = a certain amount of money."

("Κλίναι πέντε ἀντὶ . . .

ὅσου αἱ πέντε κλίναι")

73:4 Zunächst spricht Aristoteles klar aus, daß die Geldform der Ware nur die weiter entwickelte Gestalt der einfachen Wertform ist, d.h. des Ausdrucks des Werts einer Ware in irgendeiner beliebigen andren Ware, denn er sagt:

„5 Polster = 1 Haus“

(„Κλίναι πέντε ἀντὶ οἰκίας“)

„unterscheidet sich nicht“ von:

„5 Polster = soundso viel Geld“

(„Κλίναι πέντε ἀντὶ . . .

ὅσου αἱ πέντε κλίναι“)

By the way, the Aristotle quotations in this paragraph can be found in [Ari26, Bk. V, Ch. 5, pp. 287–9]. ↓ In the next paragraph, Marx makes his usual distinction between the value expression, and the value relation in which this expression is contained. The value relation is a social relation, used by individuals to express the values of their goods.

69:5 He further sees that the value relation, in which this expression of value is embedded, requires that the house is qualitatively equated with the bed, and that these things, which are different physical objects, could not be related to each other as commensurable magnitudes if they were not equal in essence. 'There can be no exchange,' he says, 'without equality, and no equality without commensurability' ("οὐτ' ἰσότης μὴ οὐσης συμμετρίας").

73:5 Er sieht ferner ein, daß das Wertverhältnis, worin dieser Wertausdruck steckt, seinerseits bedingt, daß das Haus dem Polster qualitativ gleichgesetzt wird und daß diese sinnlich verschiedenen Dinge ohne solche Wesensgleichheit nicht als kommensurable Größen aufeinander beziehbar wären. „Der Austausch“, sagt er, „kann nicht sein ohne die Gleichheit, die Gleichheit aber nicht ohne die Kommensurabilität“ („οὐτ' ἰσότης μὴ οὐσης συμμετρίας“).

↑ Aristotle's last sentence can perhaps be understood better if one knows that the greek word for "equal" used here is at the same time the word for "fair." Aristotle argued therefore: exchange requires fairness, and fairness can only be achieved if the exchanged goods are commensurable, i.e., can be measured with the same measure.

Question 284 Didn't Aristotle get it wrong when he wrote: "There can be no exchange without equality, and no equality without commensurability"? This sounds as if things must first be commensurable in order to be equal. Isn't commensurability an implication of equality, instead of a condition for equality?

Question 285 Aristotle wrote: 'There can be no exchange without equality, and no equality without commensurability.' What does he mean by this? What is the difference between equality and commensurability? 2007SP, 2005fa.

So far, Aristotle's analysis is amazingly close to Marx's. ↓ But Aristotle does not make the next step:

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Here, however, he falters, and abandons the further analysis of the form of value. ‘It is, however, in reality impossible (“τῇ μὲν οὖν ἀληθείᾳ ἀδύνατον”), that such unlike things are commensurable,’ i.e. qualitatively equal. Their being set equal must be something foreign to the true nature of these things, a mere ‘makeshift for practical purposes’.

Hier aber stutzt er und gibt die weitere Analyse der Wertform auf. „Es ist aber in Wahrheit unmöglich („τῇ μὲν οὖν ἀληθείᾳ ἀδύνατον“), daß so verschiedenartige Dinge kommensurabel“, d.h. qualitativ gleich seien. Diese Gleichsetzung kann nur etwas der wahren Natur der Dinge Fremdes sein, also nur „Notbehelf für das praktische Bedürfnis“.

By the way, Michael Eldred in <http://www.webcom.com/artefact/untp1tcl/exchv1js.html>, which is my source for the meaning of equality as fairness, translates Aristotle differently, and finds a utility theory of value in Aristotle. He translates the above sentence with “In truth, however, it is impossible that things so different could become commensurable, but with respect to use this is sufficiently possible.” “with respect to use” means here: that what is equal in the commodities is that both are useful.

Question 286 *This question is for those who know Classic Greek: Is Eldred’s translation of Aristotle correct, i.e., did Marx mis-translate Aristotle in 151:3?*

Question 287 *Which two steps in the analysis of value did Aristotle make correctly, and which step did he not make? 2002fa, 2001fa.*

Next, Marx uses Aristotle’s answer itself to infer the reason why Aristotle did not make the third step:

70:1 Aristotle therefore himself tells us what prevented him from carrying his analysis to the end: the lack of a concept of value.

74:1 Aristoteles sagt uns also selbst, woran seine weitere Analyse scheitert, nämlich am Mangel des Wertbegriffs.

Marx’s argument consists of two steps. (1) the only thing that can be equal in commodities is labor; (2a) if therefore Aristotle says commodities have nothing in common, (2b) he indicates that labor is not equal. I split the second step into two halves, because Marx first brings step (2a), then (1), then (2b). ↓ Here is (2a):

What is the equal something, i.e. the common substance, which the house represents for the bed in the expression of the value of the bed? Such a thing, ‘in truth, cannot exist’, says Aristotle. Why?

Was ist das Gleiche, d.h. die gemeinschaftliche Substanz, die das Haus für den Polster im Wertausdruck des Polsters vorstellt? So etwas kann „in Wahrheit nicht existieren“, sagt Aristoteles. Warum?

↓ In order to understand why Aristotle says this, Marx recapitulates now how we, ourselves, came to the opposite conclusion. This is step (1):

The house represents for the bed something equal, in so far as it represents what is indeed equal in both, in bed and house. And that is—human labor.

Das Haus stellt dem Polster gegenüber ein Gleiches vor, soweit es das in beiden, dem Polster und dem Haus, wirklich Gleiche vorstellt. Und das ist—menschliche Arbeit.

The three occurrences of “represent” in the above passage, is the translation of *vorstellt* and not the usual *darstellt*. Why does Marx use a different word here?

Because in Ancient Greece, the equality between bed and house on the market was *not* the surface representation of an underlying equality in production. Production

was not based on the equality of labor. The surface agents acted as if bed and house were equal without them being equal. It was an imagined equality.

↑ We are arguing from the vantage point of a society in which exchange relations are ubiquitous. Markets are not isolated or peripheral phenomena, but markets are central. In other words, the individual market agents equate their products all the time. They can only do this if there is in fact something equal in the different commodities, and when we looked for this equal thing we found something, namely, all commodities are products of the expenditure of human labor-power. ↓ Aristotle, on the other hand, could not make this inference, since at his time, labor was not equal (and, not coincidentally, markets played a much less central role in the economy than they do today).

Question 288 *Marx says: The house represents something equal to the bed, in so far as it represents what is really equal, both in the bed and the house. Isn't this a tautology?*

70:2 However, Aristotle could not infer, from inspecting the form of value itself, that in the form of commodity-values, all labor is expressed as equal human labor and therefore as labor of equal validity—because Greek society was founded on the labor of slaves, hence had as its natural basis the inequality of men and of their labor-powers.

74:2 Daß aber in der Form der Warenwerte alle Arbeiten als gleiche menschliche Arbeit und daher als gleichgeltend ausgedrückt sind, konnte Aristoteles nicht aus der Wertform selbst herauslesen, weil die griechische Gesellschaft auf der Sklavenarbeit beruhte, daher die Ungleichheit der Menschen und ihrer Arbeitskräfte zur Naturbasis hatte.

Question 289 *Why does Marx use the strong formulation that Aristotle was unable to see that the social basis for the exchange of commodities lies in the fact that they all contain the common substance 'labor'? Perhaps this was difficult to see, but was it really impossible? 1997ut, 1997sp, 1997WI, 1996ut, 1995WI.*

Question 290 *Labor was not equal in Ancient Greece—how could the Greeks then exchange? 2010fa, 2005fa, 1998WI, 1995WI.*

Now Marx draws his lessons from this example—some sweeping conclusions:

The secret of the expression of value, namely the equality and equal validity of all kinds of labor because and in so far as they are human labor in general, could not be deciphered until the concept of human equality had already acquired the fixity of a commonly held prejudice. This however becomes possible only in a society where the commodity form is the universal form of the product of labor, hence the dominant social relation is the relation between men as possessors of commodities. Aristotle's genius is displayed precisely by his discovery of a relation of equality in the value-expression of commodities. Only the historical limitation inherent in the society in which he lived prevented him from finding out what 'in reality' this relation of equality consisted of.

Das Geheimnis des Wertausdrucks, die Gleichheit und gleiche Gültigkeit aller Arbeiten, weil und insofern sie menschliche Arbeit überhaupt sind, kann nur entziffert werden, sobald der Begriff der menschlichen Gleichheit bereits die Festigkeit eines Volksvorurteils besitzt. Das ist aber erst möglich in einer Gesellschaft, worin die Warenform die allgemeine Form des Arbeitsprodukts, also auch das Verhältnis der Menschen zueinander als Warenbesitzer das herrschende gesellschaftliche Verhältnis ist. Das Genie des Aristoteles glänzt gerade darin, daß er im Wertausdruck der Waren ein Gleichheitsverhältnis entdeckt. Nur die historische Schranke der Gesellschaft, worin er lebte, verhindert ihn herauszufinden, worin denn „in Wahrheit“ dies Gleichheitsverhältnis besteht.

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Question 291 *Isn't it true that humans are equal? Why does Marx compare the concept of human equality with a "commonly held prejudice?"*

The Simple Form of Value Considered as a Whole

After having separated the Simple form of value into its two poles Relative and Equivalent form, and looked separately at their qualitative and quantitative aspects, Marx puts now all the pieces back together and looks at the deeper insights which this analytical exercise gave us about the whole.

70:3/o The simple value form of a commodity is contained in its value relation with a commodity of a different kind, or in its exchange relation with the latter.

74:3/o Die einfache Wertform einer Ware ist enthalten in ihrem Wertverhältnis zu einer verschiedenartigen Ware oder im Austauschverhältnis mit derselben.

↑ It is new and significant that Marx says "value relation *or* exchange relation." The value relation comes from production: both commodities contain abstract human labor in equal amounts (i.e., equal socially necessary labor-time). The exchange relation by contrast is on the surface. Marx's tedious analysis showed that the *value* relation is mirrored and represented by an *exchange* relation. ↓ After naming this result of the analysis he just did (in such a way that it is a little difficult to see that it is a result), Marx develops this result in more detail:

The value of commodity *A* is qualitatively expressed by the direct exchangeability of commodity *B* with commodity *A*. It is quantitatively expressed by the exchangeability of a specific quantity of commodity *B* with the given quantity of commodity *A*.

Der Wert der Ware *A* wird qualitativ ausgedrückt durch die unmittelbare Austauschbarkeit der Ware *B* mit der Ware *A*. Er wird quantitativ ausgedrückt durch die Austauschbarkeit eines bestimmten Quantum der Ware *B* mit dem gegebenen Quantum der Ware *A*.

↑ Marx addresses here the relative value form only, but in the First edition at this point, [megaII/5]638:2/o, Marx also says something about the equivalent form: "Regarding . . . the commodity functioning as *equivalent*, it counts for other commodity as the *embodiment of value*, as an article in *directly exchangeable form*—as *exchange-value*." Presumably, this mention of the equivalent form was inadvertently omitted in the rewriting and re-arranging between First and Second editions.

↓ The common element which emerged in each of these particular investigations was therefore that the expression of value leads to a relation of exchangeability—exchange-value.

In other words, the value of a commodity is independently expressed through its representation as 'exchange-value'.

In andren Worten: Der Wert einer Ware ist selbständig ausgedrückt durch seine Darstellung als „Tauschwert“.

↑ "Independently" means here: independently of its own use-value. The power of commodity *B* to purchase *A* is an expression of the *value* of *A* which is independent of *A*'s use-value (the linen weaver's offer to give linen for coat has nothing to do with the use-value of linen). Note that Marx uses here the word "representation" just as in 62:1.

Question 292 *I just wrote: "The power of commodity *B* to purchase *A* is an expression of the value of *A*." Shouldn't it rather be: "The power of commodity *B* to purchase *A* is an expression of the value of *B*"?* 2010fa.

↑ This seems a little anticlimactic because exchange-value is exactly where we started from. But this circular path was not in vain. We learned from it. ↓ One thing we learned (or re-confirmed, Marx said this already in 46:3/o), is that the exchange value is not located inside the commodity, although the value is:

When at the beginning of this chapter we said, in common parlance, that a commodity is a use-value and an exchange-value, we were, strictly speaking, wrong. A commodity is a use-value or object of utility, and a “value.” It represents itself as this twofold thing, that it is, as soon as its value assumes its own, from the bodily form of the commodity different form of appearance, that of exchange-value.

Wenn es im Eingang dieses Kapitels in der gang und gäben Manier hieß: Die Ware ist Gebrauchswert und Tauschwert, so war dies, genau gesprochen, falsch. Die Ware ist Gebrauchswert oder Gebrauchsgegenstand und „Wert“. Sie stellt sich dar als dies Doppelte, was sie ist, sobald ihr Wert eine eigne, von ihrer Naturalform verschiedene Erscheinungsform besitzt, die des Tauschwerts, ...

Marx discusses this also in his *Notes on Wagner*, [mecw24]544:6/o.

The main point Marx makes here is the following: instead of saying “the commodity is useful thing and exchange-value” one should rather say: “the commodity *is* useful thing and value, and in relation with other commodities it *has* exchange-value.” Marx distinguishes here clearly between that what is inside the commodity, (namely labor, which gives it its value) and what others carry to the commodity (the market participants are willing to accept the commodity in exchange, thus giving it exchange-value, because of the labor embodied in it).

Question 293 In 152:1 Marx argues that it is more precise and correct to say “the commodity is useful thing and value, and this value manifests itself in its relation with other commodities as exchange-value” instead of the abbreviated manner of speaking “the commodity is use-value and exchange-value.” Should one then also say, if one wanted to be precise, that the commodity is the carrier of value, instead of it being the carrier of exchange-value?

The commodity never has this form when looked at in isolation, but only when it is in a value relation or exchange relation with a second commodity of a different kind.

... und sie besitzt diese Form niemals isoliert betrachtet, sondern stets nur im Wert- oder Austauschverhältnis zu einer zweiten, verschiedenartigen Ware.

I.e., the coat is in the equivalent form of value only if the linen weaver has just announced that she is willing to accept linen for a coat.

Once we know this, our manner of speaking does no harm; it serves, rather, as an abbreviation.

Weiß man das jedoch einmal, so tut jene Sprechweise keinen Harm, sondern dient zur Abkürzung.

Question 294 Why is it wrong to say that the commodity is use-value and exchange-value? 2009fa, 2008fa, 2005fa.

↓ Our arrival back at exchange-value when we were looking for the forms of value also tells us about the relationship between value and exchange-value. This is one of the central insight of the whole development of the Simple form of value:

71:1 Our analysis proved that the value form or the expression of the value of the commodity springs from the nature of commodity value, instead of value and magni-

75:1 Unsere Analyse bewies, daß die Wertform oder der Wertausdruck der Ware aus der Natur des Warenwerts entspringt, nicht umgekehrt Wert und Wertgröße aus

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tude of value springing from their mode of expression as exchange-value. | ihrer Ausdrucksweise als Tauschwert.

In the First Edition, the transitional paragraph [megaII/5]43:4 between sections 1.3 and 1.4 reiterates that this is one of the central finding of this section.

Question 295 *Did Marx prove that exchange-value springs from the nature of commodity value, instead of value and magnitude of value deriving from exchange-value? If so, describe how this proof proceeded. 1997sp.*

Our arrival at the climax of subsection 1.3.A is celebrated by a fanfare consisting of three parts. First a humorous introduction taking up the remainder of paragraph 71:1, which makes fun of mainstream economics. Then follow two solemn paragraphs, one connecting the Simple form of value with the opposition between use-value and value, and the other connecting it with the commodity form of the product. Both highlight the big connections which we uncovered by our patient working through the minutiae of the Simple form of value.

First the theory-critical introduction:

This second view is the delusion shared by the Mercantilists (including Ferrier, Ganilh, and others,²² who have made a modern rehash of Mercantilism) with their antipodes, the modern traveling salesmen of Free Trade, such as Bastiat and his consorts. The Mercantilists place their main emphasis on the qualitative side of the expression of value, hence on the equivalent form of the commodity, which in its finished form is money. The modern pedlars of free trade, on the other hand, who must get rid of their commodities at any price, stress the quantitative side of the relative form of value. For them, accordingly, there exists neither value, nor magnitude of value, anywhere except in its expression by means of the exchange relation, that is, in the daily list of prices current on the Stock Exchange.

²² F. L. A. Ferrier (assistant customs-inspector), [Fer05], and Charles Ganilh, [Gan21].

The Scotsman Macleod, whose function it is to trick out the confused ideas of Lombard Street in the most learned finery, is a successful cross between the superstitious Mercantilists and the enlightened pedlars of free trade.

Mercantilists (quality, superstition) and free traders (quantity, enlightenment), as well as Macleod, a recent unhappy cross of the two, share the error that value originates from its form, while Marx just showed the opposite. Marx uses the word “free trade pedlars” (*Freihandelshausierburschen*) also in footnote 48 to paragraph 248:2–249:2 of chapter Ten. In

Dies ist jedoch der Wahn sowohl der Merkantilisten und ihrer modernen Aufwärmer, wie Ferrier, Ganilh usw.,²² als auch ihrer Antipoden, der modernen Freihandels-Commis-Voyageurs, wie Bastiat und Konsorten. Die Merkantilisten legen das Hauptgewicht auf die qualitative Seite des Wertausdrucks, daher auf die Äquivalentform der Ware, die im Geld ihre fertige Gestalt besitzt—die modernen Freihandelshausierer dagegen, die ihre Ware um jeden Preis losschlagen müssen, auf die quantitative Seite der relativen Wertform. Für sie existiert folglich weder Wert noch Wertgröße der Ware außer in dem Ausdruck durch das Austauschverhältnis, daher nur im Zettel des täglichen Preiskurants.

²² Note zur 2. Ausg. F. L. A. Ferrier (sous-inspecteur des douanes), [Fer05], and Charles Ganilh, [Gan21].

Der Schotte Macleod, in seiner Funktion, die kreuzverwirrten Vorstellungen von Lombardstreet möglichst gelehrt herauszuputzen, bildet die gelungene Synthese zwischen den abergläubigen Merkantilisten und den aufgeklärten Freihandelshausierern.

Contribution, 389/o, Marx uses similar metaphors, equating the Monetarists with catholics and the Mercantilists with protestants.

Question 296 *How can one equate mercantilism with superstition and free trade with Enlightenment? (See also Contribution, p. 389/o.)*

Contribution, footnote * to 301:3 has a brief remark about Macleod's book *Theory of Exchange*, London 1858, and footnote * to 375:1/o a longer discussion of his *Theory and Practice of Banking etc.*, 1855. Footnote 12 in chapter Four of *Capital I*, 164:1/o, also makes a short mention of that latter book. Henry Dunning Macleod lived from 1821–1902.

The next two paragraphs underline the importance of the central result of this subsection. First Marx remarks that we just witnessed the externalization of an inner opposition:

71:2 Our closer scrutiny of the expression of the value of commodity A contained in the value relation of A to B has shown that within that relation the natural form of commodity A counts only as a thing of use-value, while the natural form of B figures only as form of value, or a thing of value. The internal opposition between use-value and value, hidden within the commodity, is therefore presented by an external opposition, i.e. by a relation between two commodities such that the one commodity, that whose value is to be expressed, counts immediately only as a use-value, whereas the other commodity, in which that value is expressed, counts immediately only as exchange-value. Hence the Simple form of value of a commodity is the simple form of appearance of the opposition between use-value and value contained within the commodity.

75:2/o Die nähere Betrachtung des im Wertverhältnis zur Ware B enthaltenen Wertausdrucks der Ware A hat gezeigt, daß innerhalb desselben die Naturalform der Ware A nur als Gestalt von Gebrauchswert, die Naturalform der Ware B nur als Wertform oder Wertgestalt gilt. Der in der Ware eingehüllte innere Gegensatz von Gebrauchswert und Wert wird also dargestellt durch einen äußeren Gegensatz, d.h. durch das Verhältnis zweier Waren, worin die eine Ware, deren Wert ausgedrückt werden soll, unmittelbar nur als Gebrauchswert, die andre Ware hingegen, worin Wert ausgedrückt wird, unmittelbar nur als Tauschwert gilt. Die einfache Wertform einer Ware ist also die einfache Erscheinungsform des in ihr enthaltenen Gegensatzes von Gebrauchswert und Wert.

↑ The development of this opposition in the more developed forms of value is the subject of 78:4.

Question 297 *In 153:1, Marx says that the commodity whose value is to be expressed, counts immediately only as a use-value, and the commodity in which that value is expressed, counts immediately only as exchange-value. Isn't it just the opposite? The linen, whose value is to be expressed, counts for the linen weaver as exchange-value, and the coat, in which the value of the linen is expressed, counts for the linen weaver as use-value. 2004fa.*

The next paragraph places this central result in world history:

72:1 The product of labor is an object of utility in all states of society; but only during a historically specific epoch of development, in which the labor expended in the production of a useful article is represented as a 'bodily' property of that article, namely, its

76:1 Das Arbeitsprodukt ist in allen gesellschaftlichen Zuständen Gebrauchsgenstand, aber nur eine historisch bestimmte Entwicklungsepoche, welche die in der Produktion eines Gebrauchsdings verausgabte Arbeit als seine „gegenständliche“ Eigen-

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value, is the product of labor turned into a commodity.

schaft darstellt, d.h. als seinen Wert, verwandelt das Arbeitsprodukt in Ware.

↑ Marx says here (without putting sufficient emphasis on it) that the historical conversion of the product of labor into a commodity is driven by the exchange. First, people exchange their goods, and then they modify their production relations in order to produce for the exchange. I.e., those relations on the surface, which the whole section 3 has identified as the form of value, historically precede and stimulate the creation of that of which they are the form. This priority of the form cannot only be seen in history but also in the structure of capitalism, as Marx says in 84:1/o. From this follows Marx's next conclusion:

It therefore follows that the Simple value form of the commodity is at the same time the simple commodity form of the product of labor, and also that the development of the commodity form coincides with the development of the value form.

Es folgt daher, daß die einfache Wertform der Ware zugleich die einfache Warenform des Arbeitsprodukts ist, daß also auch die Entwicklung der Warenform mit der Entwicklung der Wertform zusammenfällt.

Fowkes writes here: "It therefore follows that the simple form of value of the commodity is at the same time the simple form of

value of the product of labour," ... This seems to be a simple typo, presumably Fowkes meant to write: "It therefore follows that the

simple form of value of the commodity is at the same time the simple *commodity form* of the product of labour."

The Moore-Aveling translation is very good here; it is clearer than the German and seems inspired by the French edition [megaII/7]43:3: "It therefore follows that the elementary value form is also the primitive form under which a product of labor appears historically as a commodity, and that the gradual transformation of such products into commodities proceeds *pari passu* with the development of the value form."

Let's be clear what is equated here to what. The development of the commodity form (of the product of labor) is the historical development in which more and more products are produced as commodities. The development of the value form of the commodity is the development of ever more sophisticated surface relations allowing commodities to change hand as commodities. The development of the commodity form is the development of society's production structure; it can be compared with the development of hardware, while the development of the value form can be compared with the development of software. [Dea12, chapter 4] argues that only such co-development can lead to true novelty; otherwise the possible software programs are always limited by the hardware.

Question 299 *Why does the development of the commodity form of the product coincide historically with development of the form of value? I.e., why did history not proceed in such a way that the products of labor first developed into commodities and then, after some time lag, the form of value of these commodities went through its own development?* 2005fa, 1997sp, 1997WI.

Question 300 *In a number of places in Capital Marx refers to the commodity form of the product and the value form of the commodity almost as if they were one and the same thing. Find those places.*

Question 301 *Derek Sayer, in [Say79, pp. 19/20], writes: "Commodity form and value-form are in fact not synonymous, though Marx frequently elides the two terms. The value-form is, strictly speaking, only one aspect of the commodity form, the other being use-value.*

But the elision is quite comprehensible because the problem of explaining the commodity form ultimately resolves itself into one of explaining the value form. Use-value, as an attribute of the product of labor under all conditions, cannot be used to explain that which differentiates the commodity form, whereas exchange-value expresses exactly this differentia specifica.” Comment.

After this pause and celebration, Marx rushes on in the argument. After recognizing, in 71:1, that the exchange relations of commodities are an expression of their value (and thus rightly deserve the name “forms of value”) we are also able to see the insufficiencies, defects, of this expression in satisfying criterion (1).

72:2 One sees right away the insufficiency of the Simple form of value, of this embryonic form which must undergo a series of metamorphoses before ripening into the price form.

76:2 Der erste Blick zeigt das Unzulängliche der einfachen Wertform, dieser Keimform, die erst durch eine Reihe von Metamorphosen zur Preisform heranreift.

↑ Right after announcing a discussion of the insufficiencies or defects of the Simple form of value, Marx remarks about the ripening of these forms—because the defects will be remedied in the “riper” forms.

↓ Marx does not simply say that the expression as a whole is defective, but he finds a defect in the relative form of value, and then shows its companion defect in the equivalent form of value.

72:3 The expression of the value of commodity *A* in terms of some arbitrary other commodity *B* merely distinguishes the value of *A* from the use-value of *A*, and therefore also only places *A* in an exchange relation with one particular different kind of commodity, instead of representing *A*’s qualitative equality with all other commodities and its quantitative proportionality to them.

76:3 Der Ausdruck in irgendwelcher Ware *B* unterscheidet den Wert der Ware *A* nur von ihrem eignen Gebrauchswert und setzt sie daher auch nur in ein Austauschverhältnis zu irgendeiner einzelnen von ihr selbst verschiedenen Warenart, statt ihre qualitative Gleichheit und quantitative Proportionalität mit allen andren Waren darzustellen.

↑ By expressing the value of a commodity in the use-value of a different commodity, the Simple form of value represents value as something that is different from its use-value, but not as something that is qualitatively equal for all commodities. This is a serious defect. The decisions of the linen weaver to accept coats, of the butcher to accept bread, etc., do not resonate with each other.

↓ On the side of the equivalent, this same defect shows itself in the fact that the coat is directly exchangeable only with the linen, not with other commodities. I.e., the coat is a poor incarnation of value.

To the Simple relative form of value of a commodity there corresponds the Isolated equivalent form of another commodity. Thus, in the relative expression of value of the linen, the coat possesses the form of equivalent, the form of direct exchangeability, only in relation to this one kind of commodity, the linen.

Der einfachen relativen Wertform einer Ware entspricht die einzelne Äquivalentform einer andren Ware. So besitzt der Rock, im relativen Wertausdruck der Leinwand, nur Äquivalentform oder Form unmittelbarer Austauschbarkeit mit Bezug auf diese einzelne Warenart Leinwand.

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Question 302 When Marx talks about the “defects” of the Simple form of value, in what respect are they defects? 2007fa, 1998WI.

↓ Although the transition from Simple to Expanded form of value remedies the just-mentioned defect, this defect is not the driving force behind the transition. Rather, the transition occurs spontaneously, “by itself.” We will see shortly that the transitions from the Expanded to the General form of value, or from the General form of value to the Money form, are no longer spontaneous but require deliberate social acts.

72:4 However, the Simple form of value passes by itself into a more complete form.

76:4 Indes geht die einzelne Wertform von selbst in eine vollständigere Form über.

↑ Although Marx says here that the Expanded form of value is *more* complete than the Simple form, he will say in 74:3 that the Expanded form, too, is incomplete.

↓ The *possibility* of a remedy can be teased out of the defect of the Simple form of value in the following way: It is a defect that value is expressed in only one arbitrary commodity. This arbitrariness contains the key to transcending this defect. It does not matter which kind the second commodity is, therefore many expressions of the value of each commodity are possible.

Although this Simple form expresses the value of a commodity A in only one commodity of another kind, it is a matter of complete indifference what this second commodity is, whether it is a coat, iron, corn, etc.

Vermittelt derselben wird der Wert einer Ware A zwar in nur einer Ware von anderer Art ausgedrückt. Welcher Art aber diese zweite Ware, ob Rock, ob Eisen, ob Weizen usw., ist durchaus gleichgültig.

↓ In the next sentence, Marx states that the theoretical possibility of multiple equivalents becomes a reality, without giving reasons why this must be so. But such a reason can be supplied easily, and 75:3 can serve as a hint: although each commodity producer specializes on producing a limited range of use-values, he or she needs many different use-values. Each linen weaver on the market is therefore likely to have a shopping list: she not only needs a coat but a number of different things as well.

Different Simple expressions of the value of one and the same commodity arise therefore according to whether this commodity enters into a value relation with this or that other kind of commodity.^{22a}

Je nachdem sie also zu dieser oder jener andren Warenart in ein Wertverhältnis tritt, entstehn verschiedne einfache Wertaussdrücke einer und derselben Ware.^{22a}

^{22a} Note to the 2nd edition. For instance in Homer, the value of a thing is expressed in a series of different things.

^{22a} Note zur 2. Aufl. Z.B. bei Homer wird der Wert eines Dings in einer Reihe verschiedner Dinge ausgedrückt.

↓ And if one looks at all linen weavers together, then almost any use-value is likely to be exchangeable for linen somewhere.

The number of such possible expressions is limited only by the number of the different kinds of commodities distinct from A. The isolated expression of A’s value transforms itself therefore into the indefinitely expandable series of different Simple expressions of that value.

Die Anzahl ihrer möglichen Wertaussdrücke ist nur beschränkt durch die Anzahl von ihr verschiedner Warenarten. Ihr vereinzelter Wertaussdruck verwandelt sich daher in die stets verlängerbare Reihe ihrer verschiednen einfachen Wertaussdrücke.

Question 304 Describe the “defects” of the Simple form of value, and explain how these defects generate their own remedy. 2005fa, 2004fa.

1.3.B. The Total or Expanded Form of Value

The Expanded form of value is a transitional phase (“*Durchgangsphase*” in the first edition, [megaII/5]43:4) between the Simple and the General forms of value. This subsection is written in a terse, telegraphic style.

73:1 *z commodity A = u commodity B or = v commodity C or = w commodity D or = x commodity E or = etc.*

73:2 (20 yards of linen = 1 coat or = 10 lb. tea or = 40 lb. coffee or = 1 quarter of wheat or = 2 ounces of gold or = 1/2 ton of iron or = etc.)

77:1 *z Ware A = u Ware B oder = v Ware C oder = w Ware D oder x Ware E oder = etc.*

77:2 (20 Ellen Leinwand = 1 Rock oder = 10 Pfd. Tee oder = 40 Pfd. Kaffee oder = 1 Quarter Weizen oder = 2 Unzen Gold oder = 1/2 Tonne Eisen oder = etc.)

If one combines all the things linen weavers are willing to accept in exchange for 20 yards of linen, one gets the Expanded form of value of linen.

The Expanded Relative Form of Value

73:3/o The value of a commodity, of the linen for example, is now expressed in countless other members of the world of commodities.

↑ Starting from the exchange relationship between linen and coats, we had inferred, previously, that there must be weavers who trade linen for coats. Now we broaden our view and look also at those weavers who trade their linen for other commodities. We get a multitude of expressions which is not due to any multiplicity of the value of linen, but simply to the fact that linen weavers, like everybody else, have many needs. ↓ But for those looking at this relation from the outside, therefore from the form side, the expression of the value of the linen is now diffracted into a bewildering multitude of different expressions:

The body of every other commodity now becomes a mirror of the linen’s value.²³

77:3 Der Wert einer Ware, der Leinwand z.B., ist jetzt ausgedrückt in zahllosen andren Elementen der Warenwelt.

Jeder andre Warenkörper wird zum Spiegel des Leinwandwerts.²³

It seems contradictory to mirror the same thing in many different mirrors. Footnote 23 documents that this contradiction was noticed in the literature:

²³ For this reason one speaks of the coat-value of the linen when its value is represented in coats, or of its corn-value when expressed in corn, and so on. Every such expression says that it is the linen’s value which appears in the use-values coat, corn etc.

²³ Man spricht deshalb vom Rockwert der Leinwand, wenn man ihren Wert in Röcken, von ihrem Kornwert, wenn man ihn in Korn darstellt etc. Jeder solche Ausdruck besagt, daß es ihr Wert ist, der in den Gebrauchswerten Rock, Korn usw. erscheint.

↑ This last sentence is an echo of the argument made in 46:3/o: these various exchange relations are the expressions of something that has to do with the linen alone, namely of the value of the linen. ↓ Bailey interprets them differently. He thinks these exchange relations indicate that linen has more than one value:

‘The value of any commodity denoting its relation in exchange, we may speak of it as ... corn-value, cloth-value, according to the com-

„Da der Wert jeder Ware ihr Verhältnis im Austausch bezeichnet, können wir ihn bezeichnen als ... Kornwert, Tuchwert, je nach

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modity with which it is compared, and hence there are a thousand different kinds of value, as many kinds of value as there are commodities in existence, and all are equally real and equally nominal' [Bai25, p. 39].

S. Bailey, the author of this anonymous work, which in its day created a considerable stir in England, was under the delusion that by pointing to the multiplicity of the relative expressions of the same commodity-value he had demolished any possibility of a conceptual determination of value.

↑ Of course, Marx does not think that Bailey has demolished the concept of value. Having multiple expressions does not turn value into a poorly defined concept.

↓ The footnote concludes with a brief evaluation of Bailey's contribution. Bailey attacked the labor theory of value, but also exposed many of the weaknesses of Ricardo's version of this theory. Marx discusses Bailey at great detail in *Theories of Surplus-Value*.

Still, despite the narrowness of his own outlook, he was able to put his finger on some serious defects in the Ricardian theory, as is demonstrated by the animosity with which he was attacked by Ricardo's followers, in the Westminster Review for example.

↑ So far footnote 23.

↓ In the main text, Marx strikes a more positive note. Far from refuting the concept of value, the proliferation of equivalents is an accurate reflection of the underlying reality that as value-creating labor, weaving counts as equal to the labors producing coats or wheat or iron or gold:

It is only thus that value truly appears as a congealed quantity of undifferentiated human labor. For the labor which creates it is now explicitly represented as labor which counts as the equal of every other sort of human labor, whatever natural form it may possess, i.e., whether it be objectified in a coat, in corn, in iron, or in gold.

↑ In connection with what I said earlier, I understand this sentence to mean: the surface relations do not reveal that the commonality inside the commodities is human labor in the abstract, but once we know this, it becomes clear that many aspects of this labor are accurately reflected on the surface. This is indeed all that is necessary so that the surface relations can guide production, since the private producers need not be told about labor—after all, the reallocation of labor is the only response to the market signals open to them. ↓ Among others, the surface relations accurately reflect the fact that human labor in the abstract is more than a physiological fact valid for every labor process individually, but that the labor processes are placed in a relation to each other as equals, i.e., they are compared with each other:

The linen, by virtue of its form of value, no longer stands in a social relation with merely one other kind of commodity, but

der Ware, mit der sie verglichen wird; und daher gibt es tausend verschiedene Arten von Werten, so viele, wie Waren vorhanden sind, und alle sind gleich real und gleich nominell.“ [Bai25, p. 39].

S. Bailey, der Verfasser dieser anonymen Schrift, die ihrer Zeit viel Lärm in England machte, wähnt durch diesen Hinweis auf die kunterbunten relativen Ausdrücke desselben Warenwerts alle Begriffsbestimmung des Werts vernichtet zu haben.

Daß er übrigens, trotz eigner Borniertheit, wunde Flecken der Ricardoschen Theorie sondiert hatte, bewies die Gereiztheit, womit die Ricardosche Schule ihn angriff, z.B. in der „Westminster Review“.

So erscheint dieser Wert selbst erst wahrhaft als Gallerte unterschiedsloser menschlicher Arbeit. Denn die ihn bildende Arbeit ist nun ausdrücklich als Arbeit dargestellt, der jede andre menschliche Arbeit gleichgilt, welche Naturalform sie immer besitze und ob sie sich daher in Rock oder Weizen oder Eisen oder Gold usw. vergegenständliche.

Durch ihre Wertform steht die Leinwand daher jetzt auch in gesellschaftlichem Verhältnis nicht mehr zu nur einer einzelnen andren

with the whole world of commodities. As a commodity it is citizen of this world.

Warenart, sondern zur Warenwelt. Als Ware ist sie Bürger dieser Welt.

↓ The next sentence brings another dimension in which this form of value expresses the truth about value:

At the same time, it is contained in this endless series of value expressions that the value of the commodity is indifferent towards the particular use-values in which it appears.

Zugleich liegt in der endlosen Reihe seiner Ausdrücke, daß der Warenwert gleichgültig ist gegen die besondere Form des Gebrauchswerts, worin er erscheint.

↑ The multitude of expressions indicates that these are only *expressions* and cannot be the real thing. If the 20 yards of linen are in one instance exchanged against 1 coat, and in another against 10 lbs. tea, etc., this makes it implausible that the exchange relations come from the relationships between the owner of linen and the owners of each of these other commodities. It is much more plausible to assume that all these other commodities, by their willingness to exchange themselves for linen, express the same thing about the commodity "linen." Marx had made a very similar argument at the very beginning of the chapter, in 46:3/o.

↓ On the quantitative side, the Expanded form is cushioned from accidental individual circumstances:

74:1 In the first form, 20 yards of linen = 1 coat, it might well be a pure accident that these two commodities are exchangeable in a specific quantitative relation. In the second form, by contrast, a background of this accidental appearance immediately shines through, which is essentially different from it yet determines it. The value of the linen remains unaltered in magnitude, whether represented in coats, coffee, or iron, or in innumerable different commodities, belonging to the most diverse owners. The accidental relation between two individual commodity-owners falls away.

78:1 In der ersten Form: 20 Ellen Leinwand = 1 Rock kann es zufällige Tatsache sein, daß diese zwei Waren in einem bestimmten quantitativen Verhältnisse austauschbar sind. In der zweiten Form leuchtet dagegen sofort ein von der zufälligen Erscheinung wesentlich unterschiedener und sie bestimmender Hintergrund durch. Der Wert der Leinwand bleibt gleich groß, ob in Rock oder Kaffee oder Eisen etc. dargestellt, in zahllos verschiedenen Waren, den verschiedensten Besitzern angehörig. Das zufällige Verhältnis zweier individueller Warenbesitzer fällt fort.

↓ This leads Marx again to a point which he had already made in 71:1:

It becomes obvious that it is not the exchange of commodities which regulates the magnitude of their values, but rather the reverse, it is the magnitude of the value of commodities which regulates the proportion in which they are exchanged.

Es wird offenbar, daß nicht der Austausch die Wertgröße der Ware, sondern umgekehrt die Wertgröße der Ware ihre Austauschverhältnisse reguliert.

Question 306 How does the Expanded form of value make it obvious, as Marx says in 155:3/o, that it is not the exchange of commodities which regulates the magnitude of their values, but rather the reverse, it is the magnitude of the value of commodities which regulates the proportion in which they are exchanged? 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa.

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Question 307 Three times, Marx advertises as one of the main results of his form analysis that exchange relations are determined by value rather than value being determined by exchange. The main advertisement is in his discussion of the Simple form of value in 152:2/o, but he returns to it in his discussion of the Expanded form of value in 155:3/o, and there are hints of this also in his discussion of the General form of value in 158:4. Does he use different arguments, or does his argument evolve, or are there other reasons why he returns to the same theme repeatedly? 2011fa.

The Particular Equivalent Form

74:2 Every commodity, such as coat, tea, iron, etc., counts, in the expression of value of the linen, as an equivalent and therefore a physical incarnation of value.

78:2 Jede Ware, Rock, Tee, Weizen, Eisen usw., gilt im Wertausdruck der Leinwand als Äquivalent und daher als Wertkörper.

Fowkes translates *Wertkörper* with “physical object possessing value.” It would have been more accurate

to say “physical object representing value.” Moore-Aveling are here better

than Fowkes, they write “thing that is value.”

Does this mean that regardless of what kind of commodity one has, it is always exchangeable against linen, that one can always find a linen weaver who needs this commodity? This is not possible. Linen weavers would be flooded with use-values nobody wants. ↓ Marx makes this argument on a much more abstract level, by pointing out the defects of the equivalent form coming with the Expanded relative form of value.

The specific bodily form of each of these commodities is now a Particular equivalent form alongside many others.

Die bestimmte Naturalform jeder dieser Waren ist jetzt eine besondere Äquivalentform neben vielen andren.

↓ It is no longer only tailoring which immediately counts as abstract human labor, as Marx says in 68:2 discussing the second peculiarity of the equivalent form, but every labor that produces a particular equivalent:

In the same way, the many specific, concrete, and useful kinds of labor contained in the physical commodities count now as just as many particular forms of realization or manifestation of human labor in general.

Ebenso gelten die mannigfaltigen in den verschiedenen Warenkörpern enthaltenen bestimmten, konkreten, nützlichen Arbeitsarten jetzt als ebenso viele besondere Verwirklichungs- oder Erscheinungsformen menschlicher Arbeit schlechthin.

↑ This is already a defect, and it will reappear as “lack of simplicity” in the list of defects compiled next.

Defects of the Total or Expanded Form of Value

In a hurried style, Marx enumerates the “defects” of the Total or Expanded form, and its “improvements” over the Simple form. In a nutshell, the defects are: The Expanded form is not unique (i.e., the equivalent of the same commodity is not the same everywhere and at all times), it is not simple (i.e., more than one use-value is involved in this form, but in real life one will only deal with one of these use-values at a time), and it is not uniform (i.e., the expanded equivalent of linen is qualitatively different from that of boots). One aspect which is not a defect is that it is representative, i.e., the unending series of equivalents covers the whole breadth of what abstract labor can do.

As earlier in 72:3, Marx does not simply say that the Expanded form of value as a whole is defective, but he allocates the defects to the two poles of the expression. First he enumerates three defects of the Expanded *relative* form of value.

↓ Incompleteness: Whereas value itself is something fixed and given, this representation of value is unfinished and continually subject to extensions:

74:3 Firstly, the relative expression of value of the commodity is incomplete, because the series of its representations never comes to an end. The chain, of which each equation of value is a link, is liable at any moment to be lengthened by any newly created commodity, providing the material for a fresh expression of value.

78:3/o Erstens ist der relative Wertausdruck der Ware unfertig, weil seine Darstellungsreihe nie abschließt. Die Kette, worin eine Wertgleichung sich zur andern fügt, bleibt fortwährend verlängerbar durch jede neu auftretende Warenart, welche das Material eines neuen Wertausdrucks liefert.

“Relative expression of value” is here short for “relative Expanded

form of value as an expression of value.”

↑ It is not just a theoretical possibility that new use-values may enter the market. Often, new use-values are introduced exactly for the purpose of achieving a more favorable exchange proportion than would be possible with the established ones. But the Expanded relative form of value would be unfinished even in a world without technical change. If the linen weaver offers her linen for an assortment of various other goods, then this assortment can always only be a sample, only a subset of all the goods on the market. The linen weaver may well be willing to exchange the linen also for a good which is not in this original subset.

↓ Lack of simplicity: Whereas abstract value-creating labor is simple—its origin is the same human labor-power used in various different production processes—its representation in the Expanded equivalent is not simple but composed of many different components which may send divergent messages. Marx calls it a “motley mosaic”:

Secondly, it is a motley mosaic of disparate and unconnected expressions of value.

Zweitens bildet sie eine bunte Mosaik aus-einanderfallender und verschiedenartiger Wertausdrücke.

↓ Lack of uniformity: Whereas value of linen is qualitatively equal to the value of boots, namely, they both are congealed abstract labor, the relative form of value of linen is different from that of every other commodity.

And lastly, if, as must be the case, the relative value of each commodity is expressed in this expanded form, it follows that the relative form of value of each commodity is an endless series of expressions of value which is different than the relative form of value of every other commodity.

Wird endlich, wie dies geschehn muß, der relative Wert jeder Ware in dieser entfalteten Form ausgedrückt, so ist die relative Wertform jeder Ware eine von der relativen Wertform jeder andren Ware verschiedene endlose Reihe von Wertausdrücken.

↑ “Different” means here “qualitatively different.” A representation of value is needed which is qualitatively equal for all commodities and only differs in quantity. The lists of equivalents are not necessarily proportional to each other, and they do not necessarily contain the same commodities. They do not provide the one-dimensional ordering necessary for decision-making by producers and consumers.

Question 309 *Coats are in the expanded equivalent of linen, but coats are not allowed to be in the expanded equivalent of coats. Is this what Marx means when he says in 156:2/o*

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that the expanded equivalents of different commodities are (qualitatively) different? 2013fa, 2012fa.

After the defects of the Expanded relative form, Marx discusses those of the Expanded equivalent form:

The defects of the Expanded relative form of value are reflected in the corresponding equivalent form.

—Die Mängel der entfalteten relativen Wertform spiegeln sich wider in der ihr entsprechenden Äquivalentform.

⇓ That iron, wheat, gold, etc. are included in the Expanded relative value form of linen does not mean that they suddenly show up on the market as a group. In their *existence*, these use-values are as unrelated as ever. This is why Marx begins his discussion of the defects of the Expanded equivalent form not with the whole array of commodities listed as equivalents, but with the individual commodities included in this array, which he calls “Particular” equivalents:

Since the bodily form of each individual kind of commodity is here one Particular equivalent form amongst innumerable other Particular equivalent forms, the only equivalent forms in existence are limited equivalent forms, each of which excludes any of the others.

Da die Naturalform jeder einzelnen Warenart hier eine besondere Äquivalentform neben unzähligen andren besondren Äquivalentformen ist, existieren überhaupt nur beschränkte Äquivalentformen, von denen jede die andre ausschließt.

⇑ Marx (a) calls these Particular equivalents limited, and (b) says that each excludes the other. Since Marx will elaborate on (a) in his next sentence, let’s first discuss (b). If linen has coat as one Particular equivalent, this does not mean that the linen weaver whom the tailor approaches in order to exchange his coat is one who needs a coat; instead, his Particular equivalent may exclude coats. Although the Expanded form of value covers all commodity owners offering linen, there is not one Particular equivalent which is accepted by every commodity-owner offering linen. This is a different exclusivity than that between the Expanded equivalent forms of two different commodities discussed in 76:4.

Similarly, the specific, concrete, useful kind of labor contained in each Particular commodity-equivalent is only a Particular and therefore not an exhaustive form of appearance of human labor.

Ebenso ist die in jedem besondren Warenäquivalent enthaltene bestimmte, konkrete, nützliche Arbeitsart nur besondere, also nicht erschöpfende Erscheinungsform der menschlichen Arbeit.

If you look at the actualizations of this unlimited series, which by necessity consist of only one piece of the mosaic at a time, then you also lose the representativeness. To stay with our example, the labor contained in the coat is not an exhaustive form of appearance of human labor, it is simply the kind of human labor that produces coats.

Lack of uniqueness, which was the first defect on the relative side, is the third defect of the Expanded equivalent form of value:

It is true that human labor possesses a complete or total form of appearance in the aggregation of its particular forms of appearance. But in that case it has no single, unified form of appearance.

Diese besitzt ihre vollständige oder totale Erscheinungsform zwar in dem Gesamtumkreis jener besondren Erscheinungsformen. Aber so besitzt sie keine einheitliche Erscheinungsform.

Question 310 Which characteristics of value are expressed better in the Expanded form of value than in the Simple form, and what are the defects of the Expanded form? 2012fa, 2011fa, 2009fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa.

As in 72:4, the remedy to these defects is already implicit in the problem:

75:1 The Expanded relative form of value is, however, nothing but the sum of the simple relative expressions or equations of the first form, such as:

20 yards of linen = 1 coat

20 yards of linen = 10 lb. of tea, etc.

75:2 Each of these equations implies the identical equation in reverse:

1 coat = 20 yards of linen

10 lb. of tea = 20 yards of linen, etc.

75:3 In fact, when a person exchanges his linen for many other commodities, and thus expresses its value in a series of other commodities, it necessarily follows that the other owners of commodities exchange them for the linen, and therefore express the values of their various commodities in one and the same third commodity, the linen.—

⇓ Right now Marx assumes that this potential becomes actualized, without saying why and how:

If, then, we reverse the series 20 yards of linen = 1 coat, or = 10 lb. of tea, etc., i.e. if we formulate the converse relation already implied in the series, we get:

79:1 Die entfaltete relative Wertform besteht jedoch nur aus einer Summe einfacher relativer Wertausdrücke oder Gleichungen der ersten Form, wie:

20 Ellen Leinwand = 1 Rock

20 Ellen Leinwand = 10 Pfd. Tee usw.

79:2 Jede dieser Gleichungen enthält aber

rückbezüglich auch die identische Gleichung:

1 Rock = 20 Ellen Leinwand

10 Pfd. Tee = 20 Ellen Leinwand usw.

79:3 In der Tat: Wenn ein Mann seine Leinwand mit vielen andren Waren austauscht und daher ihren Wert in einer Reihe von andren Waren ausdrückt, so müssen notwendig auch die vielen andren Warenbesitzer ihre Waren mit Leinwand austauschen und daher die Werte ihrer verschiedenen Waren in derselben dritten Ware ausdrücken, in Leinwand.—

Kehren wir also die Reihe: 20 Ellen Leinwand = 1 Rock oder = 10 Pfd. Tee oder = usw. um, d.h., drücken wir die der Sache nach schon in der Reihe enthaltene Rückbeziehung aus, so erhalten wir:

Question 311 Why doesn't Marx go from the Simple form of value directly to the General form of value by letting everyone express their values in the same commodity? 2013fa, 2012fa, 2010fa, 2008fa, 2007fa, 2004fa, 2001fa.

Question 312 Imagine a world in which humans only need one use-value to survive (e.g., some humans survive on carrots alone, others on boots alone, others again on shampoo alone, etc.), but production is such that each production process yields many different use-values (i.e., the production process which produces milk also produces shoe polish, record players, sausages, cooking oil, roller blades, coats, sunglasses, and tooth brushes, and many other things, as byproducts). Argue that in such a fictitious world, the expression of value

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would go directly from the accidental form of value to the general form of value, bypassing the expanded form of value. 2013fa, 2011fa, 2009fa, 2008fa, 2007SP.

1.3.C. General Form of Value

75:4

1	coat	=	} 20 yards of linen
10	lb. of tea	=	
40	lb. of coffee	=	
1	qtr. of wheat	=	
2	ounces of gold	=	
1/2	ton of iron	=	
x	commodity A	=	

79:4

1	Rock	=	} 20 Ellen Leinwand
10	Pfd. Tee	=	
40	Pfd. Kaffee	=	
1	Qtr. Weizen	=	
2	Unzen Gold	=	
1/2	Tonne Eisen	=	
x	Ware A	=	
usw.	Ware	=	

The Changed Character of the Value Form

Marx first discusses the changed character of the relative value form, and then of the equivalent value form. In the Value Appendix of the First edition, he used two subsections for this. The subtitles inserted here follow the First edition.

[Changed Character of the Relative Value Form] ↓ The changes in the character of the relative value form are broken down into two points, which explain the name “General” form of value:

76:1 The commodities now express their values (1) simply, because in a single commodity, and (2) in a unified manner, because each commodity expresses its value in the same commodity.

79:5 Die Waren stellen ihre Werte jetzt 1. einfach dar, weil in einer einzigen Ware und 2. einheitlich, weil in derselben Ware.

Fowkes has “The commodities now present their values to us, ...” The “to us” is not in the

Moore-Aveling translation, and it is out of place. The expression or representation of value is a social

necessity which has nothing to do with the readers of this book.

↑ The First edition says “expression” instead of “representation.”

Their value form is simple and common to all, hence general.

Ihre Wertform ist einfach und gemeinschaftlich, daher allgemein.

↑ This is a pun on the German word for “general,” which is “*allgemein*,” i.e., *allen gemein*, common to all.

In the core of the economy, i.e., at a systemic level, there is a bond between all labors in society because they all are the usually interchangeable applications of the same homogeneous finite mass of human labor-power. But this intrinsic connection can only affect human activity when it enters the realm of human interactions. The interpersonal relations which induce the economic agents to take the intrinsic constraints of this limited pool of social labor-power into considerations are called, by Marx, the forms, expressions, representations of value. Since the agents do not react to value itself but to these expressions of value, it is important that these expressions are faithful expressions of the intrinsic properties of value.

In the first edition, [megaII/5]643:2, Marx emphasizes that the General form is quite different. In the second and later editions, Marx plunges into an enumeration of the differences

between the General form and the previous forms (Simple and Expanded forms of value), without first warning the reader that this is what he is doing. While discussing the differences Marx also reviews the characteristics of these previous forms. He recapitulates their shortcomings and shows how the present form overcomes them.

76:2 The two previous forms (let us call them *A* and *B*) only got as far as expressing the value of a commodity as something distinct from its own use-value or physical body.

80:1 Die Formen I und II kamen beide nur dazu, den Wert einer Ware als etwas von ihrem eignen Gebrauchswert oder ihrem Warenkörper Unterschiedenes auszudrücken.

By emphasizing the distinction between value and use-value of the same commodity, the previous forms lost the homogeneity of value itself. This will be explained in the next two paragraphs.

76:3 The first form, *A*, produced equations like this: 1 coat = 20 yards of linen, 10 lb. of tea = 1/2 ton of iron. The value of the coat is expressed as something which is like linen, that of the tea as something which is like iron. These expressions of the value of coat and tea are therefore as different as linen is from iron.

80:2 Die erste Form ergab Wertgleichungen wie: 1 Rock = 20 Ellen Leinwand, 10 Pfd. Tee = 1/2 Tonne Eisen usw. Der Rockwert wird als Leinwandgleiches, der Tee wert als Eisengleiches usw. ausgedrückt, aber Leinwandgleiches und Eisengleiches, diese Wertausdrücke von Rock und Tee, sind ebenso verschieden wie Leinwand und Eisen.

↓ As a belated elaboration of an obscure hint in 72:1, Marx also sketches out under what circumstances these previous value forms occurred in practice:

This form, it is plain, appears in practice only in the early stages, when the products of labor are converted into commodities by accidental occasional exchanges.

Diese Form kommt offenbar praktisch nur vor in den ersten Anfängen, wo Arbeitsprodukte durch zufälligen und gelegentlichen Austausch in Waren verwandelt werden.

76:4 The second form, *B*, distinguishes the value of a commodity more completely from its own use-value, for the value of the coat now contrasts its bodily form by assuming all possible shapes, that of linen, iron, tea, etc., every shape but that of a coat.

80:3 Die zweite Form unterscheidet vollständiger als die erste den Wert einer Ware von ihrem eignen Gebrauchswert, denn der Wert des Rocks z.B. tritt jetzt seiner Naturalform in allen möglichen Formen gegenüber, als Leinwandgleiches, Eisengleiches, Teegleiches usw., alles andre, nur nicht Rockgleiches.

↑ The Expanded form is a more thoroughly negative expression of value: by expressing the value of a commodity in the shape of *all* other commodities one says that value is not equal to *any* use-value. ↓ But this thorough negativity makes homogeneity impossible:

On the other hand, this immediately excludes any expression of value common to all commodities; for, in the expression of value of each commodity, all other commodities only appear in the form of equivalents.

Andrerseits ist hier jeder gemeinsame Wertausdruck der Waren direkt ausgeschlossen, denn im Wertausdruck je einer Ware erscheinen jetzt alle andren Waren nur in der Form von Äquivalenten.

↑ It is a good thing that all commodities are included in the Expanded equivalent form, because the value relation itself spans all commodities. But the Expanded form includes the other commodities only as equivalents. Marx writes “*only* in the form of equivalents”

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because the equivalent form is passive and reflects the value relations in an upside-down fashion. The form which best reflects value is the relative form—and the Expanded form does not provide a shared relative form of value for different commodities.

↓ Again, Marx mentions the historical conditions under which the Expanded form of value occurred first:

The Expanded form of value comes into actual existence for the first time when a particular product of labor, such as cattle, is no longer exceptionally, but habitually, exchanged for various other commodities.

Die entfaltete Wertform kommt zuerst tatsächlich vor, sobald ein Arbeitsprodukt, Vieh z.B., nicht mehr ausnahmsweise, sondern schon gewohnheitsmäßig mit verschiedenen andren Waren ausgetauscht wird.

↑ See 78:6, and *Contribution*, 286:3/ooo where Marx says that the Expanded form of value is only theoretical. If there is a General equivalent, Marx will say in 79:2 that the Expanded form exists as the specific form in which the General equivalent expresses its value.

↓ Homogeneity is regained in the General form of value:

76:5 The new form we have just obtained expresses the values of the world of commodities in one single kind of commodity set apart from the rest, in linen for example, and thus represents the values of all commodities through their equality with linen. The equation with linen differentiates the value of every commodity not only from its own use-value, but from all use-values. Hence the value is expressed as that which this commodity has in common with all commodities.

80:4 Die neugewonnene Form drückt die Werte der Warenwelt in einer und derselben von ihr abgesonderten Warenart aus, z.B. in Leinwand, und stellt so die Werte aller Waren dar durch ihre Gleichheit mit Leinwand. Als Leinwandgleiches ist der Wert jeder Ware jetzt nicht nur von ihrem eignen Gebrauchswert unterschieden, sondern von allem Gebrauchswert, und ebendadurch als das ihr mit allen Waren Gemeinsame ausgedrückt.

↑ This last sentence is interesting. In the Simple and also the Expanded form of value, Marx emphasizes that the commodities express their values in the *use-value* of the Equivalent commodities. With the General form of value this is no longer the case. Once one commodity has been singled out as the General equivalent, it is no longer the *use-value* of the commodity serving as equivalent that matters, but the fact that every other commodity expresses its value in that same equivalent commodity. This value expression of all other commodities makes the equivalent commodity *directly exchangeable*, in other words, the equivalent commodity can be used to *buy* all other commodities.

↓ The expression of value in one and the same commodity makes the General form of value the first form of value that allows the producers to see which production methods have the lowest cost and which commodities are in high demand and to adjust their production schedules accordingly. This reaction by the commodity producers equalizing their labors is called by Marx “relating the commodities with each other as values.” Such a relation can only take place in production since value is a category of production.

Only this form, therefore, has the effect of relating the commodities with each other as values, or enables them to appear to each other as exchange-values.

Erst diese Form bezieht daher wirklich die Waren aufeinander als Werte oder läßt sie einander als Tauschwerte erscheinen.

1.3. Form of Value

The word “wirklich” has the word “Wirkung” (effect) hidden in itself, therefore it is translated here with “has the effect of.” I need a better understanding of the Hegelian term “Wirklichkeit.”

↑ Only if the commodities are produced as values can their exchange relations be the surface reflection of their value. Presumably this is what Marx means by the formulation that only now the commodities are enabled to “appear to each other as exchange-values.” The emphasis is on “appear,” i.e., the exchange relations on the surface are the form of appearance of the value relations in production. The key insight of the whole section as formulated in 71:1 becomes reality only with the General form of value.

Question 314 In 158:4, Marx writes the following about the general form of value: “Only this form, therefore, has the effect of relating the commodities with each other as values, or enables them to appear to each other as exchange-values.” Why didn’t he write: “or enables them to appear to each other as values”? 2013fa, 2010fa, 2008fa, 2007fa, 2007SP, 2004fa, 2003fa, 2002fa.

↓ Discussion of the General relative form of value. An important difference now is that this is no longer an interaction involving only two commodities, but it spans all of society.

76:6/o The two earlier forms express the value of a given commodity either in terms of a single commodity of a different kind, or in a series of many commodities which differ from the given commodity. In both cases it is the private task, so to speak, of the individual commodity to give itself a form of value, and it accomplishes this task without the aid of the others, which play towards it the merely passive role of equivalents.

80:5/o Die beiden früheren Formen drücken den Wert je einer Ware, sei es in einer einzigen verschiedenartigen Ware, sei es in einer Reihe vieler von ihr verschiedenen Waren aus. Beidemal ist es sozusagen das Privatgeschäft der einzelnen Ware, sich eine Wertform zu gehen, und sie vollbringt es ohne Zutun der andren Waren. Diese spielen ihr gegenüber die bloß passive Rolle des Äquivalents.

In the General form of value, the equivalent is not quite as passive:

The general form of value, on the other hand, can only arise as a joint work of the whole world of commodities. A commodity gains a general expression of its value only when, at the same time, all other commodities express their values in the same equivalent; and every newly emergent commodity must follow suit.

Die allgemeine Wertform entsteht dagegen nur als gemeinsames Werk der Warenwelt. Eine Ware gewinnt nur allgemeinen Wertausdruck, weil gleichzeitig alle andren Waren ihren Wert in demselben Äquivalent ausdrücken, und jede neu auftretende Warenart muß das nachmachen.

↓ Marx revisits and strengthens what he already said in 57:2:

It thus becomes evident that because the objectivity of commodities as values is the purely ‘social existence’ of these things, it can only be expressed through an all-sided social relation; consequently the form of their values must be a socially valid form.

Es kommt damit zum Vorschein, daß die Wertgegenständlichkeit der Waren, weil sie das bloß „gesellschaftliche Dasein“ dieser Dinge ist, auch nur durch ihre allseitige gesellschaftliche Beziehung ausgedrückt werden kann, ihre Wertform daher gesellschaftlich gültige Form sein muß.

Question 315 Describe the joint work of all commodities which is necessary to appropriately express the value of one commodity. 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP.

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Clearly, this “joint work of the whole world of commodities” must be supervised by the state. This is one of the several places in *Capital* where Marx describes, without explicitly saying so, tasks of the capitalist state.

Now the quantitative aspect:

77:1 In this form, which sets all commodities equal to the linen, the commodities appear not only as qualitatively equal, as values in general, but also as values whose quantities can be compared.

81:1 In der Form von Leinwandgleichen erscheinen jetzt alle Waren nicht nur als qualitativ Gleiche, Werte überhaupt, sondern zugleich als quantitativ vergleichbare Wertgrößen.

The rest of the paragraph elaborates how they can be compared:

Because the magnitudes of their values are expressed in one and the same material, the linen, these magnitudes are now reflected in each other. For instance, 10 lbs. of tea = 20 yards of linen, and 40 lbs. of coffee = 20 yards of linen. Therefore 10 lbs. of tea = 40 lbs. of coffee. In other words, 1 lb. of coffee contains only a quarter as much of the substance of value, that is, labor, as 1 lb. of tea.

Weil sie ihre Wertgrößen in einem und demselben Material, in Leinwand bespiegeln, spiegeln sich diese Wertgrößen wechselseitig wider. Z.B. 10 Pfd. Tee = 20 Ellen Leinwand, und 40 Pfd. Kaffee = 20 Ellen Leinwand. Also 10 Pfd. Tee = 40 Pfd. Kaffee. Oder in 1 Pfd. Kaffee steckt nur 1/4 soviel Werts substanz, Arbeit, als in 1 Pfd. Tee.

It is therefore a very good form of value. Every commodity has this form of value with one exception:

77:2/o The General relative form of value of the world of commodities excludes only one commodity, the linen, on which it imposes the character of General equivalent.

81:2 Die allgemeine relative Wertform der Warenwelt drückt der von ihr ausgeschlossenen Äquivalentware, der Leinwand, den Charakter des allgemeinen Äquivalents auf.

[Changed Character of the Equivalent Form] Next Marx asks how the value of this excluded equivalent commodity is expressed:

The bodily form of the linen is the common form taken by the value of all commodities. Linen is therefore directly exchangeable with all other commodities.

Ihre eigne Naturalform ist die gemeinsame Wertgestalt dieser Welt, die Leinwand daher mit allen andren Waren unmittelbar austauschbar.

This is an important observation: since all commodities express their values in the General equivalent, this General equivalent commodity is directly exchangeable with all commodities. What does “directly exchangeable” mean? If you take an ordinary commodity to market, two questions must be resolved for an exchange to go through: (1) does your trading partner need your commodity, and (2) how much of his own commodity is he going to give you for your commodity. Your commodity is called “directly exchangeable” if question (1) is always answered in the affirmative. Nobody will turn the trade down with you because they don’t need your commodity (if your commodity is the General equivalent). Only question (2) matters, the exchange proportion between their commodity and the General equivalent. I.e., the General equivalent can be used to *buy* other commodities. This power to buy everything is a direct and positive expression of the value of the equivalent commodity:

The bodily form of the linen counts as the visible incarnation, the general social

Ihre Körperform gilt als die sichtbare Inkarnation, die allgemeine gesellschaftliche

chrysalis state, of all human labor. Weaving, the private labor which produces linen, is at the same time labor in general social form, the form of equality with all other kinds of labor. The innumerable equations of which the general form of value is composed equate the labor realized in the linen with the labor contained in every other commodity. They thus convert weaving into the general form of appearance of undifferentiated human labor. In this manner the labor objectified in the values of commodities is not just represented negatively, as labor in which abstraction is made from all the concrete forms and useful properties of actual work. Rather its own positive nature is explicitly brought out. It is the reduction of all kinds of actual labor to their common character of being human labor in general, of being the expenditure of human labor-power.

Verpuppung aller menschlichen Arbeit. Die Weberei, die Privatarbeit, welche Leinwand produziert, befindet sich zugleich in allgemein gesellschaftlicher Form, der Form der Gleichheit mit allen andren Arbeiten. Die zahllosen Gleichungen, woraus die allgemeine Wertform besteht, setzen der Reihe nach die in der Leinwand verwirklichte Arbeit jeder in andrer Ware enthaltenen Arbeit gleich und machen dadurch die Weberei zur allgemeinen Erscheinungsform menschlicher Arbeit überhaupt. So ist die im Warenwert vergegenständlichte Arbeit nicht nur negativ dargestellt als Arbeit, worin von allen konkreten Formen und nützlichen Eigenschaften der wirklichen Arbeiten abstrahiert wird. Ihre eigne positive Natur tritt ausdrücklich hervor. Sie ist die Reduktion aller wirklichen Arbeiten auf den ihnen gemeinsamen Charakter menschlicher Arbeit, auf die Verausgabung menschlicher Arbeitskraft.

Question 317 *How does the General Equivalent form of value express the labor represented in value not only negatively but also positively?* 2013fa, 2011fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 1997ut.

[Implications of the Changed Character of the Value Form] Now the whole of the General form of value:

78:1 The General form of value, in which all products of labor are presented as mere congealed quantities of undifferentiated human labor, shows by this general coverage alone that it is the social expression of the world of commodities. Thus it makes it plain that within this world the general human character of labor forms its specific social character.

81:3 Die allgemeine Wertform, welche die Arbeitsprodukte als bloße Gallerten unterschiedsloser menschlicher Arbeit darstellt, zeigt durch ihr eignes Gerüste, daß sie der gesellschaftliche Ausdruck der Warenwelt ist. So offenbart sie, daß innerhalb dieser Welt der allgemein menschliche Charakter der Arbeit ihren spezifisch gesellschaftlichen Charakter bildet.

Interdependence of the Development of Relative Form of Value and Equivalent Form

The main objective of section 1.3 is an understanding of the “genesis” of money, see 57:3/o. Money is a commodity which is always in the general equivalent form. The equivalent, however, is passive. In the present brief subsection Marx shows that also the *development* of the equivalent form is passive; it is driven by the development of the relative form.

78:2 The degree of development of the equivalent form corresponds to that of the relative form of value. However it should be

81:4 Dem Entwicklungsgrad der relativen Wertform entspricht der Entwicklungsgrad der Äquivalentform. Aber, und dies ist wohl

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noted that the development of the equivalent form is only the expression and result of the development of the relative form.

⇓ More specifically, the equivalents in the Simple, Expanded, and General forms of value are generated through the actions of the commodities in the corresponding relative forms of value.

78:3 The Simple or Isolated relative form of value of one commodity converts some other commodity into a Simple equivalent. The Expanded form of relative value, that expression of the value of one commodity in terms of all other commodities, imprints on those other commodities the form of various Particular equivalents. Finally, a particular kind of commodity obtains the form of General equivalent, because all other commodities make it the material embodiment of their unified and general form of value.

zu merken, die Entwicklung der Äquivalentform ist nur Ausdruck und Resultat der Entwicklung der relativen Wertform.

82:1 Die einfache oder vereinzelt relative Wertform einer Ware macht eine andre Ware zum einzelnen Äquivalent. Die entfaltete Form des relativen Werts, dieser Ausdruck des Werts einer Ware in allen andren Waren, prägt ihnen die Form verschiedenartiger besonderer Äquivalente auf. Endlich erhält eine besondere Warenart die allgemeine Äquivalentform, weil alle andren Waren sie zum Material ihrer einheitlichen, allgemeinen Wertform machen.

The equivalents go through the progression individual—particular—general.

Despite the correspondence in the development paths of the two poles, these paths themselves do not converge but, on the contrary, the “opposition” between the two poles becomes stronger. (This opposition will then be used, in chapter Two, 97:2, to explain the practical implementation of the forms of money along with the development of commodity production itself.) We use “opposition” as translation for the German word *Gegensatz*. In the First edition, [megaII/5]645:2, it is called a “polar opposition,” which is explained to be an “inseparable connectedness and at the same time continual exclusion.”

78:4 Concomitantly with the development of the value form itself, however, develops also the opposition between the relative form of value and the equivalent form, the two poles of the value form.

82:2 In demselben Grad aber, worin sich die Wertform überhaupt entwickelt, entwickelt sich auch der Gegensatz zwischen ihren beiden Polen, der relativen Wertform und Äquivalentform.

This opposition is already present in the Simple form of value, although both sides consist of arbitrary commodities:

78:5 The first form, 20 yards of linen = 1 coat, already contains this opposition, but does not attach it.

82:3 Schon die erste Form—20 Ellen Leinwand = 1 Rock—enthält diesen Gegensatz, fixiert ihn aber nicht.

The opposition is not “attached” or “fixed” to the commodities because one cannot say, for instance, that the linen is in the relative and the coat in the equivalent form. One can only say that for the weaver, the linen is in the relative and the coat in the equivalent form, but for the tailor just the reverse holds: for him, the linen is in the equivalent and the coat in the relative form.

According to whether we read the same equation forwards or backwards, each of the two commodity poles (such as linen and coat) is found in the relative form on one occasion, and in the equivalent form on the other.

Je nachdem dieselbe Gleichung vorwärts oder rückwärts gelesen wird, befindet sich jedes der beiden Warenextreme, wie Leinwand und Rock, gleichmäßig bald in der relativen Wertform, bald in der Äquivalentform.

↓ This indeterminacy makes it difficult to even see that there is an opposition.

Here it is still difficult to keep hold of the polar opposition.

Es kostet hier noch Mühe, den polarischen Gegensatz festzuhalten.

↓ The Expanded form of value is no longer symmetric, but its reversal leads to a new form of value, the General form of value.

78:6 In form *B*, only one commodity at a time can expand its relative value into a totality, and it only possesses this Expanded relative form of value because, and in so far as, all other commodities are with respect to it, equivalents. Here we can no longer reverse the equation—such as 20 yards of linen = 1 coat or = 10 lb. of tea or = 1 quarter of wheat etc.—without altering its whole character, and converting it from the Expanded form into the General form of value.

82:4 In der Form II kann immer nur je eine Warenart ihren relativen Wert total entfalten oder besitzt sie selbst nur entfaltete relative Wertform, weil und sofern alle andren Waren sich ihr gegenüber in der Äquivalentform befinden. Hier kann man nicht mehr die zwei Seiten der Wertgleichung—wie 20 Ellen Leinwand = 1 Rock oder = 10 Pfd. Tee oder = 1 Qrtr. Weizen etc.—umsetzen, ohne ihren Gesamtcharakter zu verändern und sie aus der totalen in die allgemeine Wertform zu verwandeln.

↑ Form *B*: interchange of the sides no longer possible in the same equation. Such an interchange transforms *B* into *C*.

↓ In form *C*, the opposition develops into a contradiction: one commodity is general equivalent *because* all others are not.

79:1 Finally, the last form, *C*, gives to the world of commodities a general social relative form of value, because, and in so far as, all commodities except one are thereby excluded from the equivalent form. A single commodity, the linen, therefore has the form of direct exchangeability with all other commodities, in other words it has a immediately social form because, and in so far as, no other commodity is in this situation.²⁴

82:5 Die letztere Form, Form III, endlich gibt der Warenwelt allgemein-gesellschaftliche relative Wertform, weil und sofern, mit einer einzigen Ausnahme, alle ihr angehörigen Waren von der allgemeinen Äquivalentform ausgeschlossen sind. Eine Ware, die Leinwand, befindet sich daher in der Form unmittelbarer Austauschbarkeit mit allen andren Waren oder in unmittelbar gesellschaftlicher Form, weil und sofern alle andren Waren sich nicht darin befinden.²⁴

↑ This also means: as soon as a general equivalent exists, direct barter is marginalized. This is even enforced by modern anti-trust laws. “Reciprocity agreements,” i.e., agreements of the sort: I buy this from you if you buy that from me, are illegal. Two firms are not allowed to co-operate so as to protect themselves from the market at large.

↓ Footnote 24 says two things: (A) it explains that this opposition is by no means obvious, and (B) from there it leads to Proudhon’s petty bourgeois ideology, which denies that there are oppositions.

²⁴ It is by no means self-evident that the form of direct and universal exchangeability implies an opposition, that this form is as inseparable from its opposite, the form of non-direct exchangeability, as the positivity of one pole of a magnet is from the negativity of the other pole. This has allowed the illusion to arise that all commodities can simultaneously be imprinted with the stamp of direct exchangeability, in the same

²⁴ Man sieht es der Form allgemeiner unmittelbarer Austauschbarkeit in der Tat keineswegs an, daß sie eine gegensätzliche Warenform ist, von der Form nicht unmittelbarer Austauschbarkeit ebenso unzertrennlich wie die Positivität eines Magnetpols von der Negativität des andren. Man mag sich daher einbilden, man könne allen Waren zugleich den Stempel unmittelbarer Austauschbarkeit aufdrücken, wie man sich einbil-

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way that it might be imagined that all Catholics simultaneously can be popes. It would, of course, be highly desirable in the eyes of the petty bourgeois, who views the production of commodities as the absolute summit of human freedom and individual independence, if the inconveniences connected with this form, notably also the impossibility of direct exchangeability of commodities, could be removed. This philistine utopia is depicted in the socialism of Proudhon, which, as I have shown elsewhere, does not even possess the merit of originality, but was in fact developed far more successfully long before Proudhon by Gray, Bray and others. Even so, wisdom of this kind is still rife in certain circles under the name of 'science'. No school of thought has thrown around the word 'science' more haphazardly than that of Proudhon, for "where thoughts are absent, words are brought in as convenient replacements."

↑ Marx refers here to his 1847 polemic against Proudhon, *The Poverty of Philosophy*, chapter One. The quotation at the end of the footnote is a slightly altered quotation from Goethe, *Faust*, Part I, Scene 4, *Faust's Study*. Related is also footnote 40 to paragraph 97:2 in chapter Two.

William J. Blake wrote in [Bla39, pp. 625–27]: "Proudhonism has dogged the footsteps of Marxism from 1847 to the present day. Its type of thinking is the standard 'radical' approach to the world. It is common to currency reformers and fascists (in theory), and its isolation of the banker as the source of all evil is extremely popular. But it lacks any understanding of the totality of production relations, and is gaseous."

Question 318 *Why is it not possible that all Catholics are simultaneously popes?* 2001fa, 1999SP, 1998WI.

After this digression in the footnote let us go back to the main text, in which the argument was: all commodities share a joint relative form of value because all commodities except one are excluded from the general equivalent form. Since people accept the general equivalent for their own commodities because they know they can use the general equivalent to purchase the things they need, the question is relevant now the value of this excluded commodity is expressed.

79:2 The commodity that plays the role of General equivalent is on the other hand excluded from the uniform and therefore General relative form of value. If the linen, or any other commodity serving as General equivalent, were, at the same time, to share in the relative form of value, it would have to serve as its own equivalent. We should then have: 20 yards of linen = 20 yards of linen, a tautology in which neither value nor its magnitude is expressed.

den mag, man könne alle Katholiken zu Päpsten machen. Für den Kleinbürger, der in der Warenproduktion das nec plus ultra menschlicher Freiheit und individueller Unabhängigkeit erblickt, wäre es natürlich sehr wünschenswert, der mit dieser Form verbundenen Mißstände überhoben zu sein, namentlich auch der nicht unmittelbaren Austauschbarkeit der Waren. Die Ausmalung dieser Philisterutopie bildet Proudhons Sozialismus, der, wie ich anderswo gezeigt, nicht einmal das Verdienst der Originalität besitzt, vielmehr lange vor ihm von Gray, Bray und andern weit besser entwickelt wurde. Dies verhindert solche Weisheit nicht, heutzutage, in gewissen Kreisen, unter dem Namen der „science“ zu grassieren. Nie hat eine Schule mehr als die Proudhonsche mit dem Wort „science“ um sich geworfen, denn „wo Begriffe fehlen, da stellt zur rechten Zeit ein Wort sich ein.“

83:1 Umgekehrt ist die Ware, die als allgemeines Äquivalent figuriert, von der einheitlichen und daher allgemeinen relativen Wertform der Warenwelt ausgeschlossen. Sollte die Leinwand, d.h. irgendeine in allgemeiner Äquivalentform befindliche Ware, auch zugleich an der allgemeinen relativen Wertform teilnehmen, so müßte sie sich selbst zum Äquivalent dienen. Wir erhielten dann: 20 Ellen Leinwand = 20 Ellen Leinwand, eine Tautologie, worin weder Wert noch Wertgröße ausgedrückt ist.

Marx calls “20 yards of linen = 20 yards of linen” here a “tautology,” while his formulation in 58:5/o suggested that this equation does have a meaning although it is no longer an expression of value. This is one of the places where Marx is a little inconsistent in his argument.

In order to express the relative value of the General equivalent, we must rather reverse form *C*. This equivalent has no relative form of value in common with other commodities; its value is, rather, expressed relatively in the infinite series of all other physical commodities. Thus the Expanded relative form of value, or form *B*, now appears as the specific relative form of value of the equivalent commodity.

Um den relativen Wert des allgemeinen Äquivalents auszudrücken, müssen wir vielmehr die Form III umkehren. Es besitzt keine mit den andren Waren gemeinschaftliche relative Wertform, sondern sein Wert drückt sich relativ aus in der endlosen Reihe aller andren Warenkörper. So erscheint jetzt die entfaltete relative Wertform oder Form II als die spezifische relative Wertform der Äquivalentware.

This expression of the value of money is relevant because the seller no longer compares the value of his commodity with the use-value of the equivalent, but with the bundle of use-values which a given sum of money can buy.

Transition from the General Form of Value to the Money Form

80:1 The General equivalent form is one of the forms of value. Any commodity can therefore be the General equivalent. However whatever commodity it is, it is only in General equivalent form (form *C*) because and in so far as all other commodities exclude it from their ranks and treat it as the equivalent. And it is not until this exclusion has once and for all confined itself to one specific kind of commodity, that the uniform relative form of value of the whole world of commodities has gained objective fixity and general social validity.

83:2 Die allgemeine Äquivalentform ist eine Form des Werts überhaupt. Sie kann also jeder Ware zukommen. Andererseits befindet sich eine Ware nur in allgemeiner Äquivalentform (Form III), weil und sofern sie durch alle andren Waren als Äquivalent ausgeschlossen wird. Und erst vom Augenblick, wo diese Ausschließung sich endgültig auf eine spezifische Warenart beschränkt, hat die einheitliche relative Wertform der Warenwelt objektive Festigkeit und allgemein gesellschaftliche Gültigkeit gewonnen.

The transition from forms *A* to *B* to *C* was driven by the defects of these forms, their insufficiencies in expressing value. The transition from *C* to *D*, by contrast, is driven by an inner tension in form *C* itself. The General equivalent form is a form of value which can be assumed by every commodity, but this form has a very exclusive character: if one commodity is in this form, all other commodities are excluded from it. This tension between arbitrariness and uniqueness can only be resolved by a social act which fixes one commodity as General equivalent.

80:2 As for the specific kind of commodity, with whose natural form the equivalent form socially grows together, it becomes the money commodity, or assumes money functions.

83:3/o Die spezifische Warenart nun, mit deren Naturalform die Äquivalentform gesellschaftlich verwächst, wird zur Geldware oder funktioniert als Geld.

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I avoided the formulation “functions as money” although this is what Marx wrote, because in chapter Three, the function of money as money is distinguished from its function as measure of value or means of circulation. In other words, here the translation tries to use a more consistent terminology than Marx himself.

Fowkes translates this passage as: “The specific kind of commodity with whose natural form the equivalent form is socially interwoven now becomes the money commodity, or serves as money.” The social coalescence Marx talks about here does not have the character of an interweaving. Interweaving

implies the harmonious merger of two things that fit together. Marx writes “*verwächst*,” not “*zusammenwächst*,” which connotes the growing together of two things which have nothing in common, like a tree growing together with a rock that is in its way.

↑ Marx’s formulation “becomes” the money commodity shows that Marx considers the transition from the role of General equivalent to the Money form as a process of becoming. As long as only some but not all commodities express their values in this specific commodity kind, or as long as they are doing it only sometimes and not always, this specific commodity kind is not yet money, it “becomes” money to the extent that it becomes the one commodity which always and everywhere holds the role of General equivalent. The other formulation “grows together” is consistent with this, growing is also a process of becoming. Right now, Marx defines the money commodity as that commodity kind which assumes money functions. He is not yet specific about it what these money functions are. In chapter Three, Marx will distinguish between three functions of money: measure of value, means of circulation, and the function of money “as money.” The process described here puts us at the starting point of the function of measure of value, the development of this function and the other two functions will be derived in chapter Three.

Playing the part of General equivalent within the world of commodities becomes its specific social function and consequently its social monopoly. In form *B*, the commodities figure as Particular equivalents of linen, and in form *C* they jointly express their relative values in linen; now there is one particular commodity which has historically conquered this favored position: gold. If, then, in form *C*, we replace the linen with gold, we get:

Es wird ihre spezifisch gesellschaftliche Funktion, und daher ihr gesellschaftliches Monopol, innerhalb der Warenwelt die Rolle des allgemeinen Äquivalents zu spielen. Diesen bevorzugten Platz hat unter den Waren, welche in Form II als besondere Äquivalente der Leinwand figurieren und in Form III ihren relativen Wert gemeinsam in Leinwand ausdrücken eine bestimmte Ware historisch erobert, das Gold. Setzen wir daher in Form III die Ware Gold an die Stelle der Ware Leinwand, so erhalten wir:

1.3.D. Money Form

80:3

20	yards of linen	=	} 2 ounces of gold
1	coat	=	
10	lb. tea	=	
40	lb. coffee	=	
1	quarter of corn	=	
$\frac{1}{2}$	ton of iron	=	
x	commodity A	=	
	etc.		

84:1

20	Ellen Leinwand	=	} 2 Unzen Gold
1	Rock	=	
10	Pfd. Tee	=	
40	Pfd. Kaffee	=	
1	Qtr. Weizen	=	
$\frac{1}{2}$	Tonne Eisen	=	
x	Ware A	=	

80:4 Fundamental changes have taken place in the course of the transition from form *A* to form *B* and from form *B* to form *C*.

↑↑ By implication, the difference between *C* and *D* is *not* fundamental.

As against this, there is no difference between forms *C* and *D*, except that gold instead of linen has now assumed the General equivalent form. Gold is in form *D* what linen was in form *C*: the General equivalent. The advance consists only in that the form of direct and general exchangeability, in other words the General equivalent form, has now by social custom irrevocably become entwined with the specific bodily form of the commodity gold.

Not the form as such differs, only the use-value this form is attached to. “Gold” and “linen” in this passage must be understood metaphorically. Gold stands for a specific commodity which is by social custom always in the General equivalent form, while “linen” stands for a General equivalent which is decided case by case, perhaps because it is most convenient for the situation at hand. This seems to be only a subtle difference, but it has important implications. The welding together of a particular use-value with a particular form of value generates a true novelty, and the functions of money in chapter Three show how fertile this combination is.

84:2 Es finden wesentliche Veränderungen statt beim Übergang von Form I zu Form II, von Form II zu Form III.

Dagegen unterscheidet Form IV sich durch nichts von Form III, außer daß jetzt statt Leinwand Gold die allgemeine Äquivalentform besitzt. Gold bleibt in Form IV, was die Leinwand in Form III war—allgemeines Äquivalent. Der Fortschritt besteht nur darin, daß die Form unmittelbarer allgemeiner Austauschbarkeit oder die allgemeine Äquivalentform jetzt durch gesellschaftliche Gewohnheit endgültig mit der spezifischen Naturalform der Ware Gold verwachsen ist.

In the German original, the word “spezifisch” was used once in 80:1, twice in 80:2, and once in 80:4. This term is also used

elsewhere, e.g., in 104:1, see my annotations there, and in *Contribution*, 303:4/o. Despite the apparent significance of this term,

the Moore-Aveling translation does not use the word “specific” here.

This particular use-value was gold because this use-value conforms best with the properties of a General equivalent (see chapter Two, 100:1 about that). The next paragraph shortly sketches how gold started out as an ordinary commodity and gradually conquered the position of being recognized everywhere as the General equivalent. Only after this has been accomplished has there been a difference between the General form of value with gold as the equivalent, and the Money form of value.

81:1 Gold confronts the other commodities as money only because it previously confronted them as a commodity. Like all other commodities, one of its functions was that of an equivalent, either a Simple equivalent in isolated exchanges, or a Particular equivalent alongside other commodity-equivalents. Gradually it began to serve as General equivalent in narrower or wider circles. As soon as it has won the monopoly of this position in the value expression of the world of commodities, does it become the

84:3 Gold tritt den andren Waren nur als Geld gegenüber, weil es ihnen bereits zuvor als Ware gegenüberstand. Gleich allen andren Waren funktionierte es auch als Äquivalent, sei es als einzelnes Äquivalent in vereinzelter Austausch, sei es als besondres Äquivalent neben andren Warenäquivalenten. Nach und nach funktionierte es in engeren oder weiteren Kreisen als allgemeines Äquivalent. Sobald es das Monopol dieser Stelle im Wertaussdruck der Warenwelt erobert hat, wird es Geldware,

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money commodity. And only from the moment that it has already become the money commodity, does form *D* differentiate itself from form *C*, i.e., does the General form of value transform itself into the Money form.

und erst von dem Augenblick, wo es bereits Geldware geworden ist, unterscheidet sich Form IV von Form III, oder ist die allgemeine Wertform verwandelt in die Geldform.

This answers the question, posed in 57:3/o, of the genesis of the Money form, but it does not show in what respects the Money form differs from the General form of value. What Marx calls here the Money form is not a new form of value but the coalescence of the General equivalent with a specific use-value. This creates something new, which will be explored in chapter Three.

Exam Question 320 *The difference between the Money form (under the gold standard) and the General equivalent form is small; nevertheless it has important implications. Elaborate.* 2013fa, 2012fa, 2011fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1999SP, 1997ut, 1997sp, 1996sp, 1995WI.

Question 321 *Compare Marx's derivation of money with the derivations of money in modern Economics* 2013fa, 2012fa, 2009fa, 2008SP, 2007fa, 2007SP.

Next Marx mentions briefly what becomes of the relative form of value when the equivalent form turns into the Money form.

81:2 The Simple relative expression of the value of some commodity, such as linen, in the commodity which already functions as the money commodity, such as gold, is the price form. The 'price form' of the linen is therefore: 20 yards of linen = 2 ounces of gold or, if 2 ounces of gold when coined give £ 2, 20 yards of linen = £ 2.

84:4 Der einfache relative Wertausdruck einer Ware, z.B. der Leinwand, in der bereits als Geldware funktionierenden Ware, z.B. dem Gold, ist Preisform. Die „Preisform“ der Leinwand daher: 20 Ellen Leinwand = 2 Unzen Gold oder, wenn 2 Pfd.St. der Münzname von 2 Unzen Gold, 20 Ellen Leinwand = 2 Pfd.St.

This discussion will be continued in much more detail in chapter Three, see 104:3/o. In the last paragraph of section 1.3, Marx returns from *D* back to *A* and thus concludes the circle.

81:3 The only difficulty in the comprehension of the Money form is that of grasping the General equivalent form or, more broadly, of the General form of value, form *C*. Form *C* can be reduced by working backwards to form *B*, the Expanded form of value, whose constitutive element is form *A*: 20 yards of linen = 1 coat or *x* commodity *A* = *y* commodity *B*. The Simple commodity form is therefore the germ of the Money form.

85:1 Die Schwierigkeit im Begriff der Geldform beschränkt sich auf das Begreifen der allgemeinen Äquivalentform, also der allgemeinen Wertform überhaupt, der Form III. Form III löst sich rückbezüglich auf in Form II, die entfaltete Wertform, und ihr konstituierendes Element ist Form I: 20 Ellen Leinwand = 1 Rock oder *x* Ware *A* = *y* Ware *B*. Die einfache Warenform ist daher der Keim der Geldform.

The first edition, [megaII/5]43:4, brings a transitional paragraph here which reiterates what Marx considered the most important finding of this section:

As one sees, the analysis of the commodity yields all *essential* determinations of the *form of value*. It yields the form of value it-

Man sieht: die Analyse der Ware ergibt alle *wesentlichen* Bestimmungen der *Wertform* und die Wertform selbst in ihren gegensätz-

self, in its opposite moments, the *General relative form of value*, the *General equivalent form*, finally the never-ending *series of Simple relative value expressions*, which first constitute a transitional phase in the development of the form of value, in order to eventually turn into the *specific relative form of value of the General equivalent*.

Marx distinguishes here between *general* value forms, which can be assumed by any commodity, and *specific* value forms, which cannot.

However the analysis of the commodity yielded these forms as *forms of the commodity* in general, which can therefore be taken on by every commodity—although in a polar manner, so that when commodity *A* finds itself in *one* form determination, then commodities *B*, *C*, etc. assume the *other* in relation to it.

↓ The last sentence is especially significant.

It was however of decisive importance to discover the inner necessary connection between *form* of value, *substance* of value, and *magnitude* of value, i.e., expressed ideally, to prove that the *form* of value springs from the *concept* of value.

lichen Momenten, die *allgemeine relative Wertform*, die *allgemeine Äquivalentform*, endlich die nie abschließende *Reihe einfacher relativer Wertausdrücke*, welche erst eine Durchgangsphase in der Entwicklung der Wertform bildet, um schließlich in die *spezifisch relative Wertform des allgemeinen Äquivalents* umzuschlagen.

Aber die Analyse der Ware ergab diese Formen als *Warenformen* überhaupt, die also auch jeder Ware zukommen, nur *gegensätzlich*, so daß wenn die Ware *A* sich in der *einen* Formbestimmung befindet, die Waren *B*, *C*, usw. ihr gegenüber die *andere* annehmen.

Das entscheidend Wichtige aber war den inneren notwendigen Zusammenhang zwischen *Wertform*, *Wertschubstanz* und *Wertgröße* zu entdecken, d.h. ideell ausgedrückt, zu beweisen, daß die *Wertform* aus dem *Wertbegriff* entspringt.

The German word is “ideell” and not “ideal”; i.e., this is not a wrong

(idealistic) expression, but it is the reflection of this reality in theory.

One might translate it as: “expressed epistemically.”

Marx did not begin with the concept of value to derive from it the form of value, but he began with the analysis of a concrete object of practical activity, namely, the commodity. Then at the end he can step back and summarize his findings with the words: the form of value springs from the concept of value. This is a reversal of Hegel, the necessity of which is best seen if one translated it into the core-surface paradigm: Marx tried to show in this derivation that monetized market relations are the appropriate surface relations which induce the economic agents, who interact in this way on the surface, to produce value in the core of the economy.

Question 323 Can the form of value be derived from the concept of value?

Question 326 Compare the discussion of section 1.3 in these Annotations here with the discussion of section 1.3 in [Sek97, vol 1, pp 34ff]. 2011fa.

1.4. The Fetish-Like Character of the Commodity and its Secret

In the First edition of *Capital*, chapter One ended with a seven-page passage about the fetish-like character of the commodity, starting at [megaII/5]44:1. For the Second edition, Marx

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thoroughly revised this passage and almost doubled its length. But even the Second edition must be considered incomplete, and they are no further changes in the later editions. Marx discusses here a set of questions that are very important for understanding capitalism and the possibilities to overcome it.

Although Marx does not divide section 1.4 into subsections, these Annotations divide it into five parts. The whole section is an analysis of the sources and implications of what Marx calls the mysterious character of the commodity. Marx first gives a characterization of what the mysterious character of the commodity *consists in* (subsection 1.4.a) and then asks where it *comes from* (1.4.b). Since social relations take the form of mysterious objective phenomena, scientific efforts are necessary to understand these phenomena enough so that “successful” action within this framework is possible. “Bourgeois economics” does exactly this; it is discussed in subsection 1.4.d. Subsection 1.4.e gives four examples of societies in which social relations do not take a mysterious form, followed by a short sketch of the correspondence between religion and the relations of production. Subsection 1.4.f is related to 1.4.d; it points out the theoretical errors, the “fetishism,” of bourgeois political economy.

Before our detailed commentary of section 1.4 can begin, we must look at the *title* of this section, which reads, in German, “*Der Fetischcharakter der Ware und sein Geheimnis*.” Usually, “*Fetischcharakter der Ware*” is translated with “commodity fetishism.” However, a more accurate translation would be “fetish-like character of the commodity.” Marx distinguishes between “fetishism,” which is a misconception about the world, and “fetish-like character,” which is a not an illusion but a real characteristic of social relations. Commodities have a *fetish-like character*, while members of capitalist society often display *fetishism* (systematized in “bourgeois economics”). Fetishism and bourgeois economics will be discussed in subsections 1.4.d and 1.4.f. A brief allusion to fetishism is already given at the end of 1.4.a, but the early parts of this section focus on the *fetish-like character* of the *commodity*.

In the Moore-Aveling translation, the title is: “The Fetishism of Commodities and the Secret

Thereof.” Fowkes translated it as “The Fetishism of the Commodity and its Secret.” Both are wrong.

The French edition says correctly: “Le caractère fétiche de la marchandise et son secret.”

Exam Question 327 *What is the difference between commodity fetishism and the fetish-like character of commodities?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008SP, 2007SP, 2005fa, 2004fa, 2003fa, 2001fa.

Question 328 *In what way can commodity fetishism and the fetish-like character of commodities be viewed as opposites of each other?* 2013fa, 2012fa.

1.4.a. [Exactly Which Aspects of the Commodity are Mysterious?]

We are at the end of an thorough and rigorous investigation in which Marx formed hypotheses about the nature of commodity relations and verified these hypotheses. Now Marx is asking: “Why did I have to go through all this? I live in this society and reproduce it through my daily activity. Why do I have to act like a detective in order to understand the most basic structural facts about my own society?”

One might think that commodities are something which we understand, after all they are the products which we are producing. Nevertheless, these products of ours have relations with each other which seem independent of us. How did they get these relations? Marx rules out the use-value (81:4/o) and the *content* of the value determinations (82:1), in order

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to arrive at the upside-down *form* which this content takes so that the products can relate to each other as commodities (82:2). To illustrate the mysterious character of the commodity form, Marx brings analogies of the eye and religion (82:3/o). Afterwards, in what we call subsection 1.4.b, Marx will go on to investigate *the origin* of this mysterious character of the commodities on the surface of the economy. He finds this origin in the interactions of the commodity producers in the production process. After this overview let's follow the discussion in subsection 1.4.a sentence by sentence:

81:4/o At first glance, a *commodity* seems to be something obvious and trivial.

85:2 Eine *Ware* scheint auf den ersten Blick ein selbstverständliches, triviales Ding.

↑ “Obvious and trivial” because a commodity seems to be a useful object whose properties are easily examined and understood. ↓ But the scientific analysis of this seemingly simple object reveals a complex inner structure.

But its analysis brings out that it is quite intricate, abounding in metaphysical hairsplitting and theological niceties.

Ihre Analyse ergibt, daß sie ein sehr vertracktes Ding ist, voll metaphysischer Spitzfindigkeit und theologischer Mucken.

↑ Each word in this sentence refers to one of the results of the earlier analysis:

- The commodity is “intricate”—because it has many determinations, it has not only use-value but also value. Its value manifests itself in various forms—from the simple exchangeability of two commodities to the power of money to buy everything.
- It engages in “metaphysical hairsplitting”—because in the commodity itself, these multiple determinations are undeveloped, so that one needs the powers of abstraction to grasp them. (See First edition, [megaII/5]28:6/o).
- It abounds in theological niceties—because money can be compared to the god of commodities, as Marx did in the First edition, [megaII/5]37:1.

In order to unpack Marx's sentence we had to go back to the First edition because this sentence itself was already present in the First edition, while two of the specific places this sentence seems to refer to did not make it into the later editions.

Question 329 Which “intricacies,” “metaphysical hairsplitting,” and “theological niceties” is Marx referring to when he calls the commodity “mysterious”? 2013fa, 1997sp, 1997WI, 1995WI.

The wording “intricate,” “metaphysical hairsplitting,” and “theological niceties” indicates that the commodity has properties which do not come from its physical body, and whose character is not obvious to the people handling the commodities.

Question 330 Is there any empirical evidence for Marx's claim that the commodity is mysterious? 2013fa, 2012fa.

Question 332 () What does Marx mean when he calls the commodity “mysterious”?

Question 333 () What is the connection between the commodity being “intricate” or “mysterious” and its fetish-like character?

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Question 336 *Science is supposed to clear things up, not make them more complicated. Is there something wrong with Marx's science if it turns a simple commodity into an intricate thing abounding in metaphysical hairsplitting and theological niceties?* [2013fa](#), [2012fa](#), [2011fa](#).

Marx calls the commodity “intricate” or, in the next sentence, “mysterious,” immediately after giving a theory which fully explains the commodity. The mysterious character is therefore not a reflection of our ignorance about the commodity. The commodity is mysterious because the simple social relations which our analysis discovered in the commodity are not expressed in the commodity in a straightforward manner but in a contradictory and contorted way. Subsection 1.4.a asks which expressions of which social relations have the effect to leave the agents in a commodity society in the dark about the character of their own social relations. Marx answers this question in two steps. First, following his earlier analysis, he cuts the commodity into several (conceptual) pieces and asks which of these pieces is mysterious (i.e., leads to contradictory expressions). In his own words, this is the question where the mysterious character of the commodity is located. After having narrowed down his search to those elements which harbor the mystery by ruling out those which are not mysterious, his next question is: what is it in those social relations that causes their expressions to be contradictory? This is the question about the source of the mysterious character.

Question 340 *Comment on the following statement: “After a long and tedious explanation of the commodity, Marx surprises his reader at the end of chapter One with the assertion that the commodity is mysterious. This is Marx's last-ditch effort to drag commodity production into the dirt, after his own analysis could not turn up much that is wrong with it. Ironically, Marx admits here that his explanation of the commodity is less than satisfactory, since it mystifies something that is really plain and simple.”* [2013fa](#), [2008SP](#), [2007SP](#), [2004fa](#), [2003fa](#).

First therefore, Marx looks where the mysterious character of the commodity is *located*. This requires a *search*, instead of being immediately obvious, only because Marx is looking for the mysterious character in the *commodity*. Many economic phenomena in capitalism have an *outwardly* “mysterious” or magical character which can be seen directly, without having to search for it. The power of money to purchase everything, or the power of capital to grow quasi on its own accord, sudden financial crises and breakdowns of economic growth, inflation, unemployment, stock market booms and busts, salaries which have nothing to do with the skills or experience of the recipient, the tendency of wealth to concentrate rather than dissipate—up to the mother of all economic riddles of the 21st century: Why is it more important to increase corporate profits than preserve a livable planet? These are the big and dangerous magical phenomena where the economy seems to have a separate “life” which pays little attention to human well-being. Although the economy is the product of the economic agents, it acts as if it was a force independent of them.

Modern economics does not admit that the economy is beyond the control of the economic agents. The theory of *rational expectations* explains the mysterious phenomena of modern capitalism as the outgrowth of nothing other than pure human rationality in the absence of full information. At most, modern economics finds irrationality at the level of individual behavior (Keynes's paradox of thrift and animal spirits), but never in the social structure itself.

Far from denying the mysterious character of the commodity, Marx considers it so important that he interrupts his analysis of the social relations themselves, in order to understand

which aspect of them makes them so mysterious. But instead of picking out some of the many *outwardly* mysterious phenomena, he digs down to the root of this magic by investigating the mysterious character of the *commodity*, of the “elementary” social form, as he calls it in 45:1. In an undeveloped form, the commodity already contains many of the determinations of money and capital. Marx asserts that also the outwardly magical and self-acting characters of money and capital have their root in the more subtle mysteries of the commodity.

Exam Question 344 *Why does Marx explore the mysterious character of the commodity, which is bland and abstract, instead of picking up one of the many striking outwardly mysterious phenomena of capitalism?* 2013fa, 2012fa, 2010fa, 2008fa, 2008SP, 2007fa, 2007SP, 2004fa, 2003fa, 2002fa.

Exam Question 345 *For what reasons might it be better or even necessary to find the root of the mysterious character of capitalist society in the commodity, where it is still undeveloped and difficult to see, than in the more striking outwardly mysterious phenomena of capitalism?* 2013fa, 2012fa.

Question 346 *Whether or not the commodity is “mysterious” is a value judgment which can neither be proved nor disproved. (Here the word “value” is not used in Marx’s meaning of “commodity value” but as in “fact-value distinction.”) Do you agree that calling the commodity “mysterious” is not a factual statement but a value judgment? Would Marx himself agree?* 2013fa, 2012fa, 2011fa, 2008fa, 2008SP, 2007fa, 2004fa, 2003fa, 2002fa, 2000fa, 1997ut, 1996sp, 1995WI.

[Search for Mystery by Elimination]

After having stated that the commodity is mysterious, Marx asks in the next few paragraphs: exactly which aspect of the commodity is mysterious? Since Marx is looking for an absence here, the absence of clarity and control, he uses an elimination argument: he rules out all those cases where clarity is *present*.

↓ As the first step in this elimination, Marx rules out the commodity’s use-value.

So far as it is a *use-value*, there is nothing mysterious about the commodity, whether we consider it from the point of view that, by its properties, it satisfies human needs, or that it first obtains these properties as the *product* of human labor.

Soweit sie *Gebrauchswert*, ist nichts My-
steriöses an ihr, ob ich sie nun unter dem
Gesichtspunkt betrachte, daß sie durch ih-
re Eigenschaften menschliche Bedürfnisse
befriedigt oder diese Eigenschaften erst als
Produkt menschlicher Arbeit erhält.

↑ Use-values matter in consumption and production. ↓ Marx says a few more words about their production side.

The activity by which man changes the forms of the materials of nature in a manner useful to him is fully accessible to the senses, i.e., there is no mystery. The form of the wood, for instance, is altered when a table is made out of it. Nevertheless the table is still a piece of wood, an ordinary thing which can be seen and touched.

Es ist sinnenklar, daß der Mensch durch sei-
ne Tätigkeit die Formen der Naturstoffe in
einer ihm nützlichen Weise verändert. Die
Form des Holzes z.B. wird verändert, wenn
man aus ihm einen Tisch macht. Nichts-
destoweniger bleibt der Tisch Holz, ein or-
dinäres sinnliches Ding.

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↑ The production process is fully accessible to the senses. A more literal translation would be: it is clear to the senses that mankind changes the forms of the natural materials. This process is supervised and controlled by the human producers, as opposed to the social processes investigated in this book, whose character is not obvious or even observable.

Question 347 *Isn't it reductionism to say that the table is wood, as Marx says in 163:3/o? And what about tables made from other materials?* [2013fa](#), [2012fa](#), [2011fa](#), [2009fa](#).

The production process may use sophisticated technologies, but this is not what Marx means by “mysterious.” While making this clarification, Marx presumably also has another axe to grind. Marx chose formulations emphasizing the *transformational* character of production. (This transformational character was already addressed in [53:1](#) and its footnote 13.) Marx’s secret message here is that anyone who does not hold this transformational view believes in miracles. In other words, Marx is using the first, trivial step in his elimination to promote a transformational view of material production, instead of a view in which production creates something out of nothing.

Material production changes the form of things in order to make them useful for humans. This process is based on science, not magic; therefore it cannot lead to opaque social relations. ↓ But this scientific rationality is lost when the *social context* of production is considered, i.e., when the article is no longer seen as a mere use-value but as a commodity: But, as soon as the table steps forth *as a commodity*, it changes into a thing with extrasensory features attached to its sensuous existence.

Aber sobald er *als Ware* auftritt, verwandelt er sich in ein sinnlich übersinnliches Ding.

Fowkes writes “as soon as it emerges as a commodity.” This can be misleading because the naive reader thinks that the table, despite being simple wood, obtains mystical properties as soon

as it emerges from the production process as a finished product. I.e. that the fetish-like character of the commodity consists in people falling in love with the desirable use-values of their commodities.

This is exactly the opposite of what Marx wanted to convey. “Commodity” means here not just a product, but a product produced for sale, a product in a specific *social* context.

Not only does it stand with its feet on the ground, but it turns itself on its head in relation to all other commodities, and evolves out if its wooden brain grotesque ideas, far spleenier than if it suddenly were to begin dancing.²⁵

Er steht nicht nur mit seinen Füßen auf dem Boden, sondern er stellt sich allen anderen Waren gegenüber auf den Kopf und entwickelt aus seinem Holzkopf Grillen, viel wunderlicher, als wenn er aus freien Stücken zu tanzen begänne.²⁵

“*Aus freien Stücken*”: Fowkes’s translation “of its own free will” has connotations to “will” which do not belong here. Perhaps one

could say “of its own whim, accord.” The translation here uses “suddenly” because this implies spontaneity and self-activity. It is

also inspired by the French “que si elle se mettait à danser.”

↑ As in the second sentence of [81:4/o](#), Marx brings again several colorful metaphors referring to similar aspects of the commodity as before. Whereas the former metaphors emphasized that the commodity contained forces which are not obvious to those handling the commodities, the present metaphors indicate that the commodity acts on its own accord:

- As a commodity, a table is sensuous *and* extrasensory—because it is not only the product of useful labor but at the same time the accumulation of abstract labor. In [82:3/o](#) Marx will use the formulation “sensuous-extrasensory or social.”

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- In relation to all other commodities, the table stands on its head.—This is a reference to the three peculiarities of the equivalent form, in which the form itself is the exact opposite of that what this form represents and regulates.
- The table evolves out of its wooden brain grotesque ideas.—Since value manifests itself in the relation between commodities, the commodities seem to be animated beings with their own intentions and social relations.

The metaphor in this last item shows that Marx considers economic laws to be *tendencial*. The results of the analysis of the commodity earlier in chapter One are compared here to a “spleen” in the commodity’s head, i.e., as a *tendency* to act in a certain way, not necessarily any particular action itself. Only the higher forms of capitalist wealth (money and especially capital) depend, for their existence, on these tendencies being enacted.

Footnote 25 brings an example where the tables literally begin to dance:

²⁵ One remembers that China and the tables seemed to dance when all the rest of the world seemed to stand still—in order to encourage the others.

²⁵ Man erinnert sich, daß China und die Tische zu tanzen anfangen, als alle übrige Welt stillzustehn schien—pour encourager les autres.

↑ Spiritistic table-shifting had become fashionable during the reactionary aftermath of the 1848 revolution in Germany. Marx saw the irony: while social progress was frozen, tables began to move. “China” is a pun. It refers at the same time to the porcelain dishes on the moving tables and to the Taiping-revolution in China, which, Marx hoped, would encourage others to follow suit.

[Content of the Value Determinations]

82:1 The mysterious character of the commodity does not arise, therefore, from its use-value.

85:3/o Der mystische Charakter der Ware entspringt also nicht aus ihrem Gebrauchswert.

What is translated here as “mysterious” is not the word

rätselhaft, as before, but the word *mystisch*. We assume that Marx

does not distinguish between these terms.

↑ This summarizes the results of the previous paragraph. ↓ Commodities are the unity of use-value and value. Since use-value has been ruled out, Marx looks now whether the mysterious character of the commodity can have something to do with value.

No more does it spring from the content of the determinations of *value*.

Er entspringt ebensowenig aus dem Inhalt der Wertbestimmungen.

Moore and Aveling translated “*Inhalt*” with “nature.” But in the modern usage of the word

“nature,” not only *Inhalt* but also *Form* would be considered part of the commodity’s nature. Marx is

trying to say something much narrower here.

↑ This formulation may create the impression that we will also come up empty-handed if we look at value. But this impression is false. Marx does not say that the mysterious character does not come from value. He only rules out the *content* of the value determinations. The usage of the word “content” here is similar to its usage in the phrase “content of a speech,” i.e., that what a speech transmits, abstracted from the form in which it was delivered.

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The “content” (*Inhalt*) of the value determinations must be distinguished here from the social *form* which this content takes in a commodity society. The first edition, [megaII/5] 44:2/o, formulates the same idea as follows:

No more does it spring from the determinations of *value*, considered for themselves

Er entspringt ebensowenig aus den *Wertbestimmungen*, für sich selbst betrachtet.

↑ “Considered for themselves” means: considered not as determinations of value but in their own right. Stepping out of the Hegelian form-content paradigm, one might say: the mysterious character does not come from those practical necessities of the social production process which are regulated by the value relations between the commodities. (If formulated this way, Marx’s next step in 82:2 follows immediately: it must come from the commodity *form*, i.e., from the objectified surface relations which regulate these aspects of social production. But let us discuss things in order.)

From various earlier places (most clearly expressed in the two transitional passages in the first edition of *Capital*, [megaII/5]21:2 and [megaII/5]42:4) we know that Marx distinguishes between three *determinations of value*: (α) its substance, (β) its quantity, and (γ) its form. The *content* of these determinations, i.e., the stuff which these aspects of value are made out of, are (α) human labor in the abstract (i.e., the expenditure of labor-power), (β) socially necessary labor-time, and (γ) a social relation on the surface of the economy (the form of value is exchange-value, which is a social relation).

Exam Question 349 *What are the three determinations of value?* 2013fa, 2012fa, 2011fa.

In order to prove that the mysterious character does not spring from the content of the value determinations, Marx argues that these three kinds of stuff themselves are not mysterious, and/or that they are not peculiar to commodity-producing societies but can also be found in societies which are not mysterious. Regarding (α) the argument is:

For in the first place, however varied the useful labors or productive activities might be, it is a *physiological* truth that they are functions of the *human* organism, and that each such function, whatever may be its nature or its form, is essentially the *expenditure of human* brain, nerves, muscles, sense organs, etc.

Denn erstens, wie verschieden die nützlichen Arbeiten oder produktiven Tätigkeiten sein mögen, es ist eine *physiologische* Wahrheit, daß sie Funktionen des *menschlichen* Organismus sind und daß jede solche Funktion, welches immer ihr Inhalt und ihre Form, wesentlich *Verausgabung* von *menschlichem* Hirn, Nerv, Muskel, Sinnesorgan usw. ist.

The word “essentially” here indicates that it is not possible to eliminate effort from the production process. Although production uses natural forces, it is not the spontaneous outcome of these natural forces. Nature has to be directed by humans to have the effect that humans desire. This “directing” the natural forces, rather than giving in to them, is an activity which requires effort. Physicists know that energy is needed to keep a system in an orderly state (with low entropy). This here is an analogous situation. Human attention and effort are needed to keep production on track.

The “physiological truth” that all production is the expenditure of the same agency, human labor-power, makes it *possible* for society, but by no means necessary, to treat all labor-powers as parts of one homogeneous mass. Marx says this in 68:2. The examples of the medieval society and the self-sufficient peasant family, given later in this section in 88:1 and 88:2/o, are examples of societies which do *not* treat their labor-powers as one homogeneous mass.

Question 350 *Marx and the Environment* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007SP, 2005fa.

Question 351 *What is an “essential” property of something? What can be said in support of Marx’s claim that labor is “essentially” expenditure of human brain, nerves, muscles, sense organs, etc.?* 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa.

Question 353 *Do you know production processes in which humans participate without having to spend any effort?* 2013fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007SP, 2005fa, 2004fa, 2003fa.

Question 354 *Skip forward to subsection 1.4.e, pp. 169:2/o – 171:2/o, and describe the social role played by the fact that all labor is the expenditure of human labor-power in the Robinson example 169:2/o, medieval society 170:1, the autarkic peasant family 171:1, and socialism 171:2/o.* 1997ut, 1996sp.

Point (β), the quantity of value, is discussed as follows:

Secondly, regarding that which underlies the determination of the magnitude of value, namely, the *duration* of that expenditure or the *quantity* of labor, this *quantity* is even palpably distinguishable from the *quality* of labor.

Was zweitens der Bestimmung der Wertgröße zugrunde liegt, die *Zeitdauer* jener Verausgabung oder die *Quantität* der Arbeit, so ist die *Quantität* sogar sinnfällig von der *Qualität* der Arbeit unterscheidbar.

Question 355 *What does Marx mean with the “palpable difference between quality and quantity of labor;” and why is this adduced as evidence that the contents of the value determination are not mysterious?* 2011fa, 2008fa, 2002fa, 2001fa.

↑ I can only conjecture what Marx might have meant with the “palpable difference” between quantity and quality of labor. Perhaps Marx refers to the fact that the quantity of value is determined “not by the quantity of labor actually objectified in (the commodity) but by the quantity of living labor necessary to produce it,” as he says in chapter Nineteen, 536:2/o. Marx reminds us in 49:1 that this difference can be deadly. ↓ But even if one ignores the remark about the palpable difference, the argument given in the next sentence rules out labor-time as a mysterious element in commodity production:

In all states of society, the labor *time* it costs to produce the means of subsistence must necessarily concern mankind, although not to the same degree at different stages of development.²⁶

In allen Zuständen mußte die *Arbeitszeit*, welche die Produktion der Lebensmittel kostet, den Menschen interessieren, obgleich nicht gleichmäßig auf verschiedenen Entwicklungsstufen.²⁶

↑ Since this is valid *generally*, the mystery of the commodity cannot come from labor-time. Even a society without commodities, which is therefore not afflicted by the mysterious character of commodities, must take labor-time into consideration.

²⁶ Note to the 2nd edition. The old Germans counted the area of an acre of land according to a day’s labor, and therefore the acre was also called Tagwerk (also Tagwanne) (jurnale or jurnal,).

²⁶ Note zur 2. Ausg. Bei den alten Germanen wurde die Größe eines Morgens Land nach der Arbeit eines Tages berechnet und daher der Morgen Tagwerk (auch Tagwanne) (jurnale oder

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terra jurnalís, jornalís or diurnalís), Mannwerk, Mannskraft, Mannsmaad, Mannshauet etc. Compare Georg Ludwig von Maurer, *Einleitung zur Geschichte der Mark-, Hof-, usw. Verfassung*, Munich 1854, p. 129 ff.

jurnalís, terra jurnalís, jornalís oder diurnalís), Mannwerk, Mannskraft, Mannsmaad, Mannshauet usf. benannt. Sieh Georg Ludwig von Maurer, „Einleitung zur Geschichte der Mark-, Hof-, usw. Verfassung“, München 1854, p. 129 sq.

Question 356 Compare the one function of labor-time in the Robinson example, p. 169:2/o, with the two functions of labor-time in the example of an “association of free men,” i.e., of a communist society given on p. 171:2/o in subsection 1.4.e. 2007SP, 1997ut, 1996sp, 1995ut, 1995WI.

Now point (γ), the form of value:

And finally, whenever men work for each other in any way, their labor also assumes a social form.

Endlich, sobald die Menschen in irgendeiner Weise füreinander arbeiten, erhält ihre Arbeit auch eine gesellschaftliche Form.

This sentence is closely related to 57:2, and can be paraphrased as: whenever people are not independent self-sufficient producers, but production is a social process in which the individual producers participate, there must be interpersonal interactions between the producers coordinating their activities. Not only does Marx say here that there is no mystery involved in this either, but additionally Marx has shown that the three “contents of the value determinations” are social necessities which every society has to deal with in one way or another. In the First edition, Marx illustrates this further with three example societies which deal with these three necessities in different ways.

Question 357 The armchair socialist (Kathedersozialist) Adolf Wagner wrote that Marx “finds the common social substance of exchange-value ... in labour.” Marx, in his Notes about Wagner, [mecw24]534:1, strenuously objects. What, if anything, is wrong with Wagner’s formulation? 2013fa, 2007fa, 2004fa.

Question 358 Since use-value is not mysterious, the commodity’s mysterious character must come from value. This is not a multiple choice question; explain your answers in detail.

a. Is a commodity mysterious because it takes labor, i.e., the expenditure of human brain, nerves, muscles, etc., to produce it?

b. Is a commodity mysterious because the question how much time it takes to produce it is relevant for society at large?

c. Is a commodity mysterious because the labors performed in a commodity-producing society are part of an overall social labor process?

d. Is there another aspect of the value of the commodity which was overlooked here that might be mysterious? 2013fa, 2011fa, 2010fa, 2008SP, 2003fa, 2000fa, 1998WI.

The First edition brings now the Robinson example and the example of a communist society, which is in the later editions moved to 87:2/o and 89:1. These example societies are scrutinized for the roles played by those characteristics of social labor which under commodity production make up the three determinations of value. In these example societies, these roles are *not* mystified. This provides further evidence that the content of the value determinations is not mysterious. By pointing out the different roles they play in different societies, Marx also clarifies his distinction between the *content* of the value determinations taken by themselves, and the context in which they are awarded social significance:

In commodity-producing society, they are attached to the use-values of the products as their *values*.

[Discrepancy between Form and Content]

82:2 From where, then, arises the mysterious character of the product of labor, as soon as it assumes the *form of a commodity*? Obviously from this form itself.

86:1 Woher entspringt also der rätselhafte Charakter des Arbeitsprodukts, sobald es *Warenform* annimmt? Offenbar aus dieser Form selbst.

Marx formulates the result of his elimination argument in such a way that the answer lies directly in the question, so that it seems almost trivial. However Marx achieves this effect only by switching without warning from the form of value to the commodity-form of the product. (Something amounting to such a “warning” was present in the first edition, where Marx gave his examples of non-commodity societies which were not mysterious. After moving these examples to a different place, the transition has become a little abrupt.) By commodity-form of the product Marx means the fact that in a market society, those three underlying social necessities which Marx calls “the contents of the value determinations” are regulated by the surface interactions of the commodities as values.

The reader of the above passage should also be advised to consider the question “from where arises” as a strictly local and *not* a causal question. At the present stage of the investigation, Marx’s concern is the location of the mysterious character and not yet how it comes about.

Marx looks now in detail at these market interactions, to verify whether they are indeed mysterious. And he finds a huge *discrepancy*, *incongruity*, between the character of those market interactions themselves and that what they regulate. Proceeding methodically, Marx contrasts the content of (α) – (γ) with the forms this content takes in commodity-producing society. Regarding (α) , Marx writes:

The equality of all human labors obtains the bodily form of the equal value quasi-materiality of all products of labor, ...

Die Gleichheit der menschlichen Arbeiten erhält die sachliche Form der gleichen Wertgegenständlichkeit der Arbeitsprodukte, ...

↑ An attribute of labor in the production process is represented on the surface as an attribute of things. And what is a physiological truth with respect to labor, becomes, once it is attached to the finished product, a social abstraction with no basis in the natural world (i.e., an absence). “So far no chemist has ever discovered exchange-value either in a pearl or a diamond.” (94:3). Only the attributes of *concrete* labor are engraved in the use-value of the product, not those of the *abstract* labor. In other words, a use-value does not reveal how much labor-time was used to produce it, and how this labor-time stands up under the test of being “socially necessary.” Nevertheless, in a commodity society, the abstract labor used to produce the products is treated *as if* it was an additional natural ingredient of the product itself (which is why these Annotations use the word “value quasi-material”). ↓ Now (β) :

... the measure of labor by time takes the form of the quantity of the value of the commodities, ...

... das Maß der Verausgabung menschlicher Arbeitskraft durch ihre Zeitdauer erhält die Form der Wertgröße der Arbeitsprodukte, ...

↑ Society’s allocation of labor, which one would expect to be based on the actual labor-time spent, depends in commodity societies on the results of haggling on the market place, on the success or failure of marketing campaigns. This ties production and exchange together in potentially vicious ways. For instance, in a market economy, investment can only be done

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when demand for final goods is high, which leads to the famous “accelerator” effect. Often it would make much more sense to invest in times when final demand is low. And today, for the energy switch away from fossil fuels, it would be necessary to use a little more of social labor for the production of energy until renewable energy has been scaled up, without disrupting everybody’s budget by steeply increased energy prices. A market economy does not have this option. Finally (γ):

... and finally the relations between the producers, in which those social determinations of their labors assert themselves and are sustained, take the form of a social relation between the products of labor.

... endlich die Verhältnisse der Produzenten, worin jene gesellschaftlichen Bestimmungen ihrer Arbeit betätigt werden, erhalten die Form eines gesellschaftlichen Verhältnisses der Arbeitsprodukte.

My translation of this last passage needs an explanation. As I said earlier, one of the important differences between Marxist and neoclassical economics is that Marxism does not reduce the social relations to the individual. The social connection, in which individuals are embedded, pre-exists the individuals and cannot be explained by looking at the individuals themselves. If one looks at the relations of production in a commodity economy, the hiatus between social and individual sphere is even wider, since individual producers and consumers interact in the market, i.e., on the surface of the economy, which is dislocated from production. The mysterious self-activity of the commodity, i.e., the fact that the economy has its own dynamics and follows its own laws, has to do with this irreducibility and dislocation.

The relationship between individual agency and the social context by which it is enabled and constrained is therefore a very special one. On the one hand, nothing happens in a society without individuals carrying it out. On the other hand, and that will only be developed fully in the present section, individual conscious activity becomes the motor through which the blind necessities of the economic structure assert themselves. The ramifications of this are discussed in more detail in [Bha89, pp. 66–77]. Marx used a special word for this intricate relationship: the social relations “*betätigen sich*” (become active) or “*werden betätigt*” (are acted out) in the practical activity of the individuals. It is an unusual use of this word, even in German, and in translations, its meaning is often completely obliterated. In the present passage I translated it with the phrase “assert themselves and are sustained” in order to indicate that these relations affect individual activity and at the same time are reproduced by individual activity.

Whereas Marx stressed earlier that it is not mysterious *that* people stand in contact with each other, the paragraph under discussion addresses the *form* of this contact, which is indeed mysterious: it is a contact between the *products*.

Question 359 Compare the three discrepancies (α)–(γ) between form and content of the value determinations with the three peculiarities of the equivalent form, and with the three “mysterious” characteristics of the commodity.

[Social Relations Take Form of Natural Properties]

The next long sentence drills down in order to find some commonality in the three incongruities between form and content discussed in the last paragraph. Despite their differences the incongruities share a simple characteristic:

82:3/o What is mysterious about the commodity form is therefore simply that the social characteristics of men’s own labor are

86:2/o Das Geheimnisvolle der Warenform besteht also einfach darin, daß sie den Menschen die gesellschaftlichen Charak-

reflected back to them as objective characteristics immanent in the products of their labor, as quasi-physical properties of these things,

tere ihrer eigenen Arbeit als gegenständliche Charaktere der Arbeitsprodukte selbst, als gesellschaftliche Natureigenschaften dieser Dinge zurückspiegelt,

The “social characteristics of labor” in commodity-producing society are the two facts that (a) all labor counts as a homogeneous portion of society’s pool of labor-power, and (b) its quantity is the socially necessary labor-time needed to produce the products. See e.g. 84:0b. I.e., these are points (α) and (β) above. Two things are happening: (1) all labor is reduced to abstract human labor, and (2) this reduction is not achieved by a direct interaction between the producers during the production process, but through the confrontation of the finished products on the market. For the individual producer this means that the integration of her labor with that of the other producers is mediated by the competition of the *products* of this labor on the market. It therefore takes an adversarial and punitive character in which there is always a winner and a loser. This is point (γ) above, which Marx summarizes next. Marx uses the phrase “social aggregate labor” (*Gesamtarbeit*) to designate the social labor in a commodity producing society, which consists of many labors performed privately. Presumably Marx chose this somewhat awkward formulation in order to avoid the connotation that it is collective labor:

and that therefore also the social relation of the producers to aggregate labor is reflected as a social relation of objects, a relation which exists apart from and outside the producers.

daher also auch das gesellschaftliche Verhältnis der Produzenten zur Gesamtarbeit als ein außer ihnen existierendes gesellschaftliches Verhältnis von Dingen.

In the draft to the revisions of the first German edition, which were published only about 25 years ago in [Mar87a, p. 38:5] or, in our notation here, [megaII/6]38:5, Marx says explicitly that the reduction of concrete labor to human labor in the abstract is the specific way how commodity producers relate their private labor to socially aggregate labor:

The reduction of the different useful labors, which produce just as many different useful things, to *human labor that counts as equal*, as well as the joint measurement of this labor by its necessary length of time, are obviously nothing other than a specific manner how the producers relate to their aggregate labor, a social relation, which the producers enter within production and with respect to production.

Die Reduktion der verschiedenen Arbeiten, welche ebenso viele verschiedene nützliche Dinge produciren, auf *gleichgeltende menschliche Arbeit*, wie das gemeinsame Messen dieser Arbeit durch ihre nothwendige Zeitdauer, ist offenbar nichts als ein bestimmtes Verhalten der Producenten zu ihrer Gesamtarbeit, ein gesellschaftliches Verhältniß, welches Personen innerhalb der Produktion und mit Bezug auf dieselbe eingehn.

The social relations regulating material production in a society are called “relations of production,” and some modern Marxists have adopted the useful distinction between relations *in* production and relations *of* production. In the last sentence ↑, Marx himself makes this distinction when he enumerated relations “within” production and relations “with respect to” production separately.

Question 360 *In commodity production, the equality of all human labor as the expenditure of human labor-power is represented by the one-dimensional equality of all products as values, society’s accounting of social labor time is represented by exchange-relations between things, and the interactions between producers and consumers are represented by social re-*

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lations between things. Make it clear to the reader of your answer that these representations are incongruous, and show what these three incongruities have in common. 2011fa.

Question 361 Explain how value denotes a specific relation of production and not just the general relationship between a producer and his product. 2010fa, 2008fa, 2007SP, 1997ut, 1997sp, 1997WI, 1996sp, 1995ut, 1995WI.

Now let us return to Marx's text in *Capital*.

Through this *quid pro quo*, the products of labor become commodities, sensuous things which are at the same time extrasensory or social.

Durch dieses Quidproquo werden die Arbeitsprodukte Waren, sinnlich übersinnliche oder gesellschaftliche Dinge.

Question 363 Just before Marx brings the analogy of the eye, in the long paragraph 164:3/o, he writes: "Through this *quid pro quo*, the products of labor become commodities, sensuous things which are at the same time extrasensory or social." This passage needs a comment in the Annotations. What should be said at this point so that the reader can understand better what Marx is getting at?

[Analogy of the Eye, and Circularity]

Next, Marx gives two analogies, first the eye and then religion, in order to emphasize the importance and wide-ranging ramifications of this substitution.

In the same way, the impact of light, emanating from some exterior object, on the optic nerve, is perceived not as a subjective stimulation of that nerve, but as the physical shape of the exterior object.

So stellt sich der Lichteindruck eines Dings auf den Sehnerv nicht als subjektiver Reiz des Sehnervs selbst, sondern als gegenständliche Form eines Dings außerhalb des Auges dar.

The mystification of the commodity relations is as unnoticeable as the translation of the nervous impulses in the retina into an image of the outside world every time one uses one's eyes. These nervous impulses are not perceived by the brain as itches of the retina, but the brain translates them, without us being aware of it, into an image of the outside world. In the same way, we do not notice that the commodities are the transmission belt for social relations which we have with other people, but we perceive the commodities themselves as endowed with social relations.

This analogy makes an important point about the fetish-like character of commodities, but it also has its limitations. The act of seeing gives good guidance to humans moving around in our habitat. Does the perception of our social relations through commodities orientate individuals equally well about their position in society? Is the mystification of the commodity relation no greater than the mystification of seeing through one's eyes? Is the market simply society's retina through which it looks at its sphere of production? Marx will say in the next sentence that there are important differences. The light giving rise to the nervous impulses comes from physical objects, which emit or reflect light according to their physical properties. The visual representation of these objects, which the brain constructs from the nervous impulses in the eye, gives information about these physical properties and thus helps humans, who are physical beings, to move about in the physical world and interact with it. This interaction uses the same laws of physics which would prevail in the outside world also without this interaction. By contrast, the properties which the commodities display on the market are *socially* generated, i.e., they are generated by the

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activity of the same human beings who are handling these objects. I.e., when the economic agents try to take advantage, in their activity, of the social properties of those objects, they change by their activity the very social properties they are trying to exploit. The summary of the analogy of the eye in Table 1.1 tries to draw attention to this.

Question 364 *What corresponds to what in the example with the eye? Give a list of correspondences, like: retina—capitalist class (this one is of course a joke), etc. To what extent is this an appropriate example, and where does the analogy have its limits?* 2009fa, 2005fa, 2003fa.

Here is Marx's own explanation of the limitations of the analogy of the eye:

In the act of seeing, however, light is in fact transmitted from one thing, the exterior object, to another thing, the eye. It is a physical relation between physical things. As against this, the commodity form of the products of labor, and the value relation in which it represents itself, have absolutely nothing to do with the physical nature of the products or with any relations they have as physical objects.

Aber beim Sehen wird wirklich Licht von einem Ding, dem äußeren Gegenstand, auf ein andres Ding, das Auge, geworfen. Es ist ein physisches Verhältnis zwischen physischen Dingen. Dagegen hat die Warenform und das Wertverhältnis der Arbeitsprodukte, worin sie sich darstellt, mit ihrer physischen Natur und den daraus entspringenden dinglichen Beziehungen absolut nichts zu schaffen.

Why is it so problematic that a social relation presents itself as a quasi-physical property of the products? Because physical properties are exogenous to human activity, while the social relations are endogenous:

It is the specific social relation of the people themselves which assumes for them, as in an optical illusion, the form of a relation of things.

Es ist nur das bestimmte gesellschaftliche Verhältnis der Menschen selbst, welches hier für sie die phantasmagorische Form eines Verhältnisses von Dingen annimmt.

"Phantasmagoria" is, according to the *Oxford English Dictionary*, "a name invented for an exhibition of optical illusions chiefly by means of the magic lantern, first

exhibited in London in 1802. This word will be used again in the French translation of 84:1/o. Moore-Aveling has: "assumes, in their eyes, the fantastic form," Paul

and Paul have: "which, in their eyes, has here assumed the semblance of a relation between things," and Fowkes has: "assumes for them the fantastic form."

Marx says (in a more literal translation than the one given above) that social relations take a "phantasmagorical" form, using a word that was coined for an exhibition of *optical illusions* in London 1802. In an optical illusion, you think that you are seeing something outside the eye which is really generated inside the eye. This is a good metaphor for the circularity of the commodity relation. Something generated in society looks as if it came from outside society, from nature.

Question 365 *In 164:3/o, Marx uses the eye as an analogy but also points out the limitations of this analogy. Earlier, in section 3, p. 148:3/o, Marx had used the weighing of a sugar-loaf as an analogy, and had described the limitations of this earlier analogy in similar words. Compare these two analogies and their limitations.* 2004fa, 1998WI.

The *circularity* implied in the representation of *social* relations as quasi-physical properties of *things* is also suggested by Marx's formulations at the beginning of the present paragraph 82:3/o "are reflected *back* to them," and in the last sentence just discussed: "the

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The stimulation of my optical nerve by light coming from a thing outside is experienced in my brain as the shape (i.e. a physical property) of a thing outside me.	The relation of my labor to social aggregate labor is experienced in my practical activity as the exchange-value (i.e. a quasi-physical property) of my product.
But in the act of seeing, the light stimulating my optical nerve comes from a physical thing outside the eye;	whereas in commodity production, that what I experience as quasi-physical properties of the things I am handling is the result of my own activity.

Table 1.1.: Correspondence Table for Analogy of Eye

specific social relation of the people *themselves* ... assumes *for them*" (my emphasis all three times). The laws of nature are the prerequisites of human activity, while social relations are its product. The quid pro quo which turns the product of labor into a commodity implies therefore that people treat the *outcome* of their own activity as it was its nature-given objective *prerequisite*. But without a separation of observer and the thing observed, science is not possible. This is why it is so difficult to overcome the mystification of the commodity.

In its dealings with nature, mankind has learned to subordinate the laws of nature to individual purposes. Nature not only imposes constraints and necessities but is also an enabling and liberating force. Material production tames nature by subordinating its forces to human will. In a commodity-producing society, in which things are endowed with social powers, individuals attempt to use the *social* properties of things for their personal benefit in a similar way as material production takes advantage of the *natural* properties of things. They try to instrumentalize these social properties, but instead of tapping into wider natural resources and thus expanding the powers of humanity they unwittingly end up drawing on the energies of others in society. This may sometimes be advantageous for a minority but cannot work for everyone. It does not *truly* work for anybody, because, instead of being able to direct the social forces to their benefit, individuals become the pawns, the unwitting enforcers of social laws which they do not control.

Modern attempts at individual emancipation from *society* imitate the successful emancipation from *nature*. And although Marx seeks to promote subjective emancipation and flourishing, the method which is used here, this transfer to the social world of a method which was undoubtedly successful in the natural world, dooms them to failure. It remains a chase after optical illusions, or an effort to build a perpetuum mobile, or an attempt to strengthen oneself by drinking one's own blood. By trying to pursue *their* goals, while at the same time heeding the seemingly objective constraints which "the market" imposes on them, and which they do not recognize as being of their own making, individuals become pawns, the unwitting executives of the inner tendencies of the commodity.

As long as individuals follow this route, they will not be able to duplicate the successes which they had in dealing with the physical world. This route will not allow individuals to transform their social relations into a benign and beneficial backdrop for their individual

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purposes. Instead, these attempts lead to the subjugation and instrumentalization of one part of society by another—and to the subordination of everyone, whether they are on the “giving” or the “receiving” end of this exploitative relationship, to the blind laws of capital accumulation.

In capitalist society, the individuals’ subordination to social laws is the result of a failed attempt to emancipate themselves from them. This contrasts sharply with the more “direct” integration of the individual into social relations prevailing in earlier historical periods, which usually amounted to a forced subjection of individual motives to an overriding social purpose. In *Grundrisse*, 17:2/o, Marx emphasizes this difference:

Only in the eighteenth century, in ‘civil society’, do the various forms of the social connection confront the individual as nothing more than a means, subordinated to his private purposes, as an extraneous necessity.

Erst in dem 18. Jahrhundert, in der „bürgerlichen Gesellschaft“, treten die verschiedenen Formen des gesellschaftlichen Zusammenhangs dem Einzelnen als bloßes Mittel für seine Privatzwecke entgegen, als äußerliche Notwendigkeit.

I translated this sentence in such a way that the interpretation which I consider the correct one comes out clearly. Since Marx did not say “merely a means for his private purposes” (*bloß als ein Mittel für*) but “a mere means” (*als bloßes Mittel*) I assume he did not intend

to say that the purposes were merely private (as opposed to the “higher” social purposes), but he wanted to emphasize that the social connection was not something commanding respect in its own right but was degraded to nothing more than a means. The

word “*äußerlich*” (extraneous) connotes a degradation as well: the social connection is not seen as the culmination of private interests, but as a constraint and obstacle coming in from the outside.

Here is another *Grundrisse* quote, from [mecw29]467:4/o, where Marx says the same thing at greater length:

That the social connection resulting from the collision of independent individuals appears with respect to them simultaneously both as objective necessity and as external bond, represents *exactly their independence*, for which *social being, though a necessity*, is no more than a *means*, and therefore *appears to the individuals themselves as something external, and in money, even as a tangible thing*. They produce in and for society, as social individuals, but at the same time this appears as a mere means to objectify their individuality.

Daß der gesellschaftliche Zusammenhang, der durch den Zusammenstoß der unabhängigen Individuen entsteht, zugleich als sachliche Notwendigkeit, und zugleich als ein äußerliches Band gegenüber ihnen erscheint, stellt *eben ihre Unabhängigkeit* dar, für die *das gesellschaftliche Dasein zwar Notwendigkeit*, aber nur *Mittel ist*, also den Individuen *selbst als ein Äußerliches erscheint, im Geld sogar als ein handgreifliches Ding*. Sie produzieren in und für die Gesellschaft, als gesellschaftliche, aber zugleich erscheint dies als bloßes Mittel ihre Individualität zu vergegenständlichen.

In capitalism, the individual tries to instrumentalize the social connections for his or her individual purposes, and fails. It is even worse than a failure, because the social connection ends up using the individual’s self-directed activity as the motor for its own blind purposes of capital accumulation.

[Analogy of Religion and a Peek at Fetishism]

Although Marx hints at this circularity several times, he never addresses it explicitly. His most explicit mention of this circularity is the analogy of *religion*, which comes next. Marx

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describes the social reality of religion by how individuals perceive it, i.e., he tacitly switches over to a new subject: instead of the *fetish-like character* of the commodity he discusses now the *fetishism* of the commodity producers.

In order, therefore, to find an analogy we must take flight into the misty realm of religion. There the products of the human brain seem to be independent beings endowed with a life of their own, which enter into relations with each other and with the human race. So it is in the realm of commodities with the products of people's hands.

Um daher eine Analogie zu finden, müssen wir in die Nebelregion der religiösen Welt flüchten. Hier scheinen die Produkte des menschlichen Kopfes mit eigenem Leben begabte, untereinander und mit den Menschen im Verhältnis stehende selbständige Gestalten. So in der Warenwelt die Produkte der menschlichen Hand.

The religious analogy is catchy, but it should not cause the reader to think that the fetish-like character of the commodity is merely a matter of an illusion. Whether or not people are aware of the social origin of the quasi-physical properties of the commodity—in their daily dealings in a commodity society, they are forced to *act* as if the commodities were things which had these social properties just as firmly attached to them as their physical properties (this was the point made by the eye analogy). For someone who is forced to act in this way, it is *easy* to slip into thinking that these social properties of the commodities really come from their physical makeup. And society relies on these “slips”: capitalistic social relations can only maintain themselves if most of the people most of the time “forget,” in their practical activity, that the powers of the things which they are trying to take advantage of originate in their own actions. But it is far from impossible to pierce that veil, and nobody individually is *forced* to see the commodity this way. Marx calls this false consciousness “fetishism.”

This I call the fetishism, which sticks to the products of labor as soon as they are produced as commodities, and which is therefore inseparable from the production of commodities.

Dies nenne ich den Fetischismus, der den Arbeitsprodukten anklebt, sobald sie als Waren produziert werden, und der daher von der Warenproduktion unzertrennlich ist.

Moore and Aveling translate it as “fetishism inherent in

commodities,” although “*ankle bend*” is the direct opposite

of “inherent.”

This is the first time that Marx uses the word “fetishism” rather than “fetish-like character.” The formulations “inseparable” and “sticks to” indicate that fetishism is not a property of the commodities themselves, but something which can be avoided only with great effort by those who handle commodities. Just as it is very difficult to avoid getting tar on oneself if one handles things covered with tar.

Here are some more examples of Marx's usage of the word “fetishism.” In 93:1, Marx again uses the term “fetishism attached to” in the context of an illusion (*Schein*). In *Results*, last sentence of , Marx writes: “This constitutes a basis for the fetishism of political economists.” Although fetishism *sticks* to the commodity, it is the fetishism “*of*” whoever is deceived by the fetish-like character. *Capital II*, , has a formulation which can be taken as a good definition of “fetishism”:

Furthermore this brings to completion the fetishism peculiar to bourgeois political economy, the fetishism which mistakes the social, economic character, which is im-

Ferner vollendet sich damit der der bürgerlichen Ökonomie eigentümliche Fetischismus, der den gesellschaftlichen, ökonomischen Charakter, welchen Dinge im gesell-

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pressed on things in the social process of production, for a natural character stemming from the material nature of these things.

schaftlichen Produktionsprozeß aufgeprägt erhalten, in einen natürlichen, aus der stofflichen Natur dieser Dinge entspringenden Charakter verwandelt.

The word fetish-like character (as opposed to fetishism) appears in the title, and in 83:1.

Question 367 *How does Marx's use of the term "fetishism" compare with its modern dictionary definition?* 2013fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP, 1998WI, 1996ut, 1996sp, 1995ut, 1995WI.

Readers in the modern U.S.A. often interpret the term "commodity fetishism" to mean an excessive devotion to material goods. I have no evidence that Marx ever used it in this way. And today's often-heard admonition that one should not "overemphasize" material goods is most of the time merely an attempt to console oneself about one's poverty by thinking poverty is desirable. For the minority who are affluent enough that this is an issue, however, this overemphasis derives from the fetish-like character of commodities. Material possessions become too important because they are the individual's only link to society: conspicuous consumption compensates for the paucity of *direct* social relations. People feel how much power things have, and they want to retrieve some of this power for themselves by owning these things.

Question 368 *Modern advertising specialists know that consumers often buy a certain product not because they need this particular article, but because they are trying to compensate for other unmet needs. These compensatory demands are important for the economy because they are insatiable. Advertising addresses them whenever it suggests that social recognition, happiness, etc. are connected with the possession of a certain object.*

Is this what Marx meant by the "fetish-like character of the commodity," or does it contradict it, or would Marx's theory give rise to amendments of this theory? 2013fa, 2012fa, 2011fa, 2008SP, 2007fa, 2005fa, 2004fa, 2003fa, 2002fa, 1997ut, 1997sp, 1997WI, 1996sp, 1995ut, 1995WI.

Question 369 *Mark Blaug writes in [Bla85, p. 268:2]: "Commodity 'fetishism' refers to the tendency to reify commodities, to treat what are in fact social relations between men as if they were relations between things." Right or wrong?* 2010fa, 2008fa, 2007fa, 1996sp.

In this subsection 1.4.a we have therefore learned: the commodities' mysterious fetish-like character lies in the incongruity, dissonance, between the commodity form of the product on the surface and the underlying social relations in the core which these surface forms regulate. People's *social* relations appear to them as *material* properties of their products, the *outcome* of their activity appears to them as its *prerequisite*. The surface appearances are not only misrepresentations, giving a distorted view of the social relations (as we will get to know in chapter Nineteen), but the entire causality is reversed. The surface agents are not only thrown into an environment in which their social relations are hidden from them, but they are also prevented to learn from their experiences, because these experiences are the reflection of their own actions.

Question 371 *Make a thought experiment comparing market production, in which an artisan produces something for sale, to community production, in which the same artisan knows the people who will use the things he is producing, and these are the same people who*

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are producing the things the artisan is consuming. If you were this artisan, would you act differently in the market situation than in the community situation? Would, over time, the use-value of your product and the technology of your labor evolve differently in these two situations? 2012fa, 2010fa, 2008fa, 2008SP, 1997ut, 1997sp, 1997WI, 1996ut, 1996sp, 1995ut, 1995WI.

1.4.b. [The Secret of the Fetish-Like Character]

The metaphor which compares people's *fetishism* with religious superstition jumps ahead a little, since the development so far has focused on the *fetish-like character* of the commodity. But the religion metaphor is a fitting transition to Marx's next question. The argument in section 1.4.a shows clearly that Marx does not consider the mysterious character of the commodity to be a reflection of lack of knowledge or false consciousness by the individuals handling the commodities, but a property of the commodity itself. Now Marx looks at the social structure of commodity economies in order to see whether he can identify something in this structure that is responsible for the mysterious character of the commodity. Marx asks: is there something in the way people relate to each other in *production*, i.e., not on the market surface but in production itself, which predisposes them to losing control over their social relations? The answer to this question is what Marx calls deciphering the "secret" of the fetish-like character of the commodity.

Textual evidence that Marx considered this so-called "secret" as a separate question is given in [megaII/6]39:5. That Marx found the question worth asking is also clear from footnote 77a in chapter Twenty-Five, paragraph 615:1/o.

At the beginning of this deeper investigation, Marx surprises us with the claim that we already know the answer:

83:1 As the foregoing analysis has already demonstrated, this fetish-like character of the world of commodities has its origin in the peculiar social character of the labor which produces them.

87:1 Dieser Fetischcharakter der Warenwelt entspringt, wie die vorhergehende Analyse bereits gezeigt hat, aus dem eigentümlichen gesellschaftlichen Charakter der Arbeit, welche Waren produziert.

"*Fetischcharakter der Warenwelt*" is, in both English editions, translated incorrectly with "fetishism."

Question 372 On what basis can Marx say already in 165:1, i.e., at the beginning of his investigation where the fetish-like character of the commodity comes from, that it comes from the double character of labor? 2012fa.

How did Marx come to this conclusion? Perhaps one can make the following two-stage argument. The foregoing analysis has shown that the forms which give the commodity its fetish-like character are expressions of the inner nature of value. See for instance First Edition, 43:4. And the most important aspect in this inner nature of value, its "pivot" 51:1, is the double character of labor. But this is a very general argument. Fortunately, in a draft version of this passage in [megaII/6]39:5, Marx is a little more explicit:

If we ask the further question where this fetish-like character of the commodity stems from, this *secret* has already been resolved by the preceding analysis. It springs from

Fragen wir nun weiter, woher dieser Fetischcharakter der Waare, so ist dieß Geheimniß bereits gelöst durch die vorhergehende Analyse. Er entspringt aus dem

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the special social character of labor which produces commodities, and the corresponding peculiar social interactions of the commodity producers.

besondern gesellschaftlichen Charakter der Arbeit, welche Waaren producirt, und dem entsprechenden eigenthümlich gesellschaftlichen Verhältniß der Waarenproduzenten.

↑ When Marx uses the word “social” or “relations” it is sometimes unclear whether he means the web of social relations all members of society are embedded in, or their interpersonal interactions. Here, i.e., both in 83:1 and [megaII/6]39:5, he seems to mean interactions, because the next paragraph dives into an investigation of the *direct interactions (or lack of direct interactions) between the producers of commodities*—which are sometimes called the relations in production or the *mode of production in the narrow sense*.

83:2/oa Objects of utility become commodities only because they are the products of private labors conducted independently of each other.

87:2 Gebrauchsgegenstände werden überhaupt nur Waren, weil sie Produkte von einander unabhängig betriebener Privatarbeiten sind.

↓ The choice of words “the complex” and “aggregate labor” in the next sentence indicate that Marx is referring here to a totality which is not consciously but only spontaneously organized.

The complex of these private labors together constitute the aggregate social labor.

Der Komplex dieser Privatarbeiten bildet die gesellschaftliche Gesamtarbeit.

To see the next transition please revisit Marx’s explanation in [megaII/6]38:5 that abstract human labor is the relationship of the individual labor to social aggregate labor.

Since the producers do not come into social contact until they exchange the products of their labors, the specific social characteristics of their private labors appear only within this exchange.

Da die Produzenten erst in gesellschaftlichen Kontakt treten durch den Austausch ihrer Arbeitsprodukte, erscheinen auch die spezifisch gesellschaftlichen Charaktere ihrer Privatarbeiten erst innerhalb dieses Austausches.

“Überhaupt” means: articles of utility not only owe their fetish-like character but more

generally their entire being commodities to the double character of labor. I left it out in

the translation.

Only in the exchange can it become clear whether or to what extent the labor used up-date production methods and was applied to produce something society needs. The choice of the word “appear” means here

- on the one hand that the social relations are constituted through the exchange, and the place which a given commodity has in the social division of labor cannot be known before it is exchanged,
- but on the other that these relations already *exist* before the exchange,
 - on the one hand because of the real interdependence in society,
 - and on the other because of what the economic agents expect to be the case.

These relations already exist but they are only *actualized*, put to the practical test and either validated or refuted, after production itself is already finished. Only when it is already too late do the economic agents enter a framework in which they can interact and act on their relations:

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In other words, the private labors take effect, through their activity, as elements of the social aggregate labor only through the connections which the act of exchange establishes between the products and, through the products' mediation, between the producers.

Oder die Privatarbeiten betätigen sich in der Tat erst als Glieder der gesellschaftlichen Gesamtarbeit durch die Beziehungen, worin der Austausch die Arbeitsprodukte und vermittelt derselben die Produzenten versetzt.

The word “*erst*” (“only” as in “only now”) is important. It criticizes how late in the game the producers interact with each other.

Commodities are produced privately, i.e., the producers do not have direct contact with each other while they are producing. But these private labors can keep the producers alive only as social labor, see [megaII/6]38:1 which can also be written as [Mar87a, p. 38:1], only to the extent to which they can prove themselves as social labor. The validation of their private labors as social labor, the reality check, and any practical activity necessary to reconcile this after-the-fact reality with the already finished production, happens retroactively through the success which the products have on the market.

After defining the situation of the producers, the relationships they find themselves in, Marx puts himself now into the shoes of the producers and asks: how do they see their situation and what requirements are they facing? Marx draws two implications from this. On the one hand, the producers themselves are not deceived in one important respect: they see the inversion, which was at the heart of the fetish-like character of the commodity at the market, as what it is:

To the producers therefore, the social relations between their private labors *appear* as what they *are*, i.e., not as direct social relations of persons during their labor processes themselves, but rather as *material relations* of persons and *social relations of things*.

Den letzteren *erscheinen* daher die gesellschaftlichen Beziehungen ihrer Privatarbeiten als das, was sie *sind*, d.h. nicht als unmittelbar gesellschaftliche Verhältnisse von Personen in ihren Arbeiten selbst, sondern vielmehr als *sachliche Verhältnisse* der Personen und *gesellschaftliche Verhältnisse der Sachen*.

The producers have better reasons than anyone else in society to treat their products as living things because their practical situation leaves them no other choice. They are hobbled! But their practical difficulties also allow them to see very clearly one aspect of the mysterious character of the commodity, but not the full truth of it. But by doing it they make it a reality also for the rest of society.

Question 373 *One of Marx's basic critiques of capitalism is that the surface appearances are false, they hide what is going on underneath. But in the section about the fetish-like character Marx seems to deny this critique since he says that the relations of their private labors appear to the producers as what they are. Can this be reconciled?* 2010fa, 2009fa, 2008fa, 2004fa.

In the first edition p. 47:2, the formulation is less dramatic:

The social relations of their labors *are* and *appear* therefore not as immediately social ...

Die gesellschaftlichen Beziehungen ihrer Arbeiten *sind* und *erscheinen* daher nicht als unmittelbar gesellschaftliche ...

The parallel use of “are” and “appear” leads here to a grammatical inconsistency, because “appear” requires “as” while “are” cannot be used together with “as.” Perhaps Marx re-worded the sentence in the second edition only in order to straighten out the grammar,

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although after this change, this sentence sounded much deeper and more mysterious. On the other hand, this is not the only place where Marx uses this more mysterious formulation. *Contribution*, 321:5 says that commodities can only relate to one another as what they are, and in a different context, Marx says in *Capital II*, , that the capitalist production process appears in the circulation process as what it is.

Question 374 Give an example of social relations between persons that take the form of “material relations of persons,” and an example of social relations between persons that take the form of “social relations of things.” 2008SP, 2007fa, 2004fa, 1999SP, 1998WI, 1997sp, 1997WI, 1995ut, 1995WI.

↓ Again “erst,” meaning that it should happen earlier but doesn’t:

84:0b It is only during the exchange that the products of labor acquire a uniform social objectivity as values, which is distinct from their varied sensuous objectivities as use-values.

87:3/o Erst innerhalb ihres Austauschs erhalten die Arbeitsprodukte eine von ihrer sinnlich verschiedenen Gebrauchsgenständlichkeit getrennte, gesellschaftlich gleiche Wertgegenständlichkeit.

Here the word “Wertgegenständlichkeit,” see 48:3 about it, is not translated as “value

quasi-material” because Marx does not mean the quasi-material itself but the different materialness of value and use-value.

Does this mean that their labors are not yet equal, because the exchange which sets the products equal happens after the production process is finished? Of course not. They are humans and can deal with impossible situations. The producers anticipate the market during production and react to the market when they continue production. Therefore they shape the direct production process according to the requirements of the market:

This division of the product of labor into a useful thing and an embodiment of value is only then carried through in practice when exchange has become sufficiently extensive and important to allow useful things to be produced for the exchange, so that their character as values is already taken into account during production. From this moment on, the labor of the private producer in fact acquires a twofold social character.

Diese Spaltung des Arbeitsprodukts in nützliches Ding und Wertding betätigt sich nur praktisch, sobald der Austausch bereits hinreichende Ausdehnung und Wichtigkeit gewonnen hat, damit nützliche Dinge für den Austausch produziert werden, der Wertcharakter der Sachen also schon bei ihrer Produktion selbst in Betracht kommt. Von diesem Augenblick erhalten die Privatarbeiten der Produzenten tatsächlich einen doppelten gesellschaftlichen Charakter.

↑ “In fact” in the last sentence means: it is no longer only a theoretical finding that their labor has a double character. But this double character changes the character of the labor process itself. Let’s see what the producers have to do practically. How do they take heed of the market outcomes during the production process? The market sanction which everybody tries to guard against is of course that the goods cannot be sold at a profitable price. This inability to fetch an appropriate price can be due to two different reasons: either the good is not needed, or the production methods for this good are not efficient enough. ↓ These two reasons lead to two different practical requirements:

On the one hand it must, as a specific useful kind of labor, satisfy a specific social need, and thus prove itself as an element of the

Sie müssen einerseits als bestimmte nützliche Arbeiten ein bestimmtes gesellschaftliches Bedürfnis befriedigen und sich so als

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aggregate labor, as a branch of the spontaneously developed social division of labor. On the other hand, it can satisfy the manifold needs of its own producer only in so far as each particular useful private labor can be exchanged with, i.e., counts as the equal of, every other kind of useful private labor.

Glieder der Gesamtarbeit, des naturwüchsi- gen Systems der gesellschaftlichen Teilung der Arbeit, bewähren. Sie befriedigen and- rerseits nur die mannigfachen Bedürfnisse ihrer eignen Produzenten, sofern jede be- sondere nützliche Privatarbeit mit jeder and- ren nützlichen Art Privatarbeit austauschbar ist, also ihr gleichgilt.

↑ This is the double character of labor, no longer as a theoretical inference but as practical necessity in the labor process itself. Labor must fit into the division of labor as concrete labor, and all labor must be equal as abstract labor.

Question 378 Describe the connection between the fetish-like character of the commodity and the double character of labor: 2012fa, 2008fa, 2004fa.

The economic agents, who observe these market sanctions, see that the market equalizes their products, but they do not experience their labors themselves as equal—although their labors *must* be equal for the products to be equal, as Marx emphatically reiterates in the next passage:

Equality of entirely different kinds of la- bor can be arrived at only by an *abstrac- tion from their real inequality*, by a reduc- tion to the characteristic they have in com- mon, that of being the *expenditure of human labor-power*, being *human labor* in the ab- stract.

Die Gleichheit toto coelo verschiedener Ar- beiten kann nur in einer Abstraktion von ih- rer wirklichen Ungleichheit bestehen, in der Reduktion auf den gemeinsamen Charakter, den sie als Verausgabung menschlicher Ar- beitskraft, abstrakt menschliche Arbeit, be- sitzen.

Toto coelo means “entirely,” and it refers to verschieden, not to Gleichheit! The French translation

p. [megaII/7]54:2/o makes this clear: “equality of the labors which *toto coelo* differ from each

other.” Also the Moore-Aveling translation has it right, but Fowkes got it wrong.

In the French edition, p. [megaII/7]54:2/o, an additional sentence follows now, which is missing in the German or the English editions, although one can find it in the draft manuscript for the second German edition, [Mar87a, p. 41]. This additional sentence emphasizes that the equalization is not happening in the labor process but only afterwards.

Only the exchange accomplishes this reduc- tion by bringing into mutual presence on an equal footing the products of the most di- verse labors.

... et c’est l’échange seul qui opère cette réduction en mettant en présence les uns des autres sur un pied d’égalité les produits des travaux les plus divers.

↑ This equalization is only done in the exchange, not already in production.

↓ After describing the situation of the producers and the requirements they are facing from their own point of view, Marx explores now that they will *do*. Instead of establishing this equality of labor by vote or at least affirming it as a unifying principle of society (similar to the one person one vote principle), they are trying to individually run away from equality, in order to protect themselves from the detrimental sanctions of the market, only to discover afterwards that this running away equalized their labors. Here it is not their individual at- tempts to benefit from their social relations, but their individual attempts to protect themselves from the social relations which backfires for them.

The private producer's brain reflects this twofold social character of his private labor only in the forms in which it manifests itself in his practical interactions, the exchange of products.

Das Gehirn der Privatproduzenten spiegelt diesen doppelten gesellschaftlichen Charakter ihrer Privatarbeiten nur wider in den Formen, welche im praktischen Verkehr, im Produktaustausch erscheinen—

↑ The producer considers the social character of his labor only (the German “*nur*” has almost the meaning of *merely*) under the perspective of the practical exigencies of the exchange. Is it significant that Marx uses a passive formulation for this kind of thinking (“his brain reflects”). It is a spontaneous act quite different from the mental efforts that would be necessary to penetrate through the fetishized appearances of commodities. The producer orients himself *merely* by the surface reactions, instead of directly addressing the core connections of which he is a part. (This displacement of his attention from core to surface will be summarized once more explicitly at the beginning of the next paragraph 84:1/o.)

↓ The next passage give more detail how the two sides of the double character of labor represent themselves to the direct producer:

The socially useful character of his private labor presents itself to the producer in the form that the product of labor has to be useful, not to him but to others, and the social character of equality of the various kinds of labor presents itself in the form of a common value-character possessed by these materially different things, the products of labor.

—den gesellschaftlich nützlichen Charakter ihrer Privatarbeiten also in der Form, daß das Arbeitsprodukt nützlich sein muß, und zwar für andre—den gesellschaftlichen Charakter der Gleichheit der verschiedenartigen Arbeiten in der Form des gemeinsamen Wertcharakters dieser materiell verschiedenen Dinge, der Arbeitsprodukte.

↑ In the First edition, [megaII/5]38:1, Marx explains that in a commodity society, the fact that one producer's commodity is use-value for others, does not have direct social weight.

↑ Although the formulation “the private producer's brain reflects” may sound as if this reflection was an illusion generated by false surface appearances, this is not the case here. That the product has to be useful for others, and that it has to contain as much as possible of whatever makes them exchangeable (value), are not false surface appearances. But the direction of the producers' attention to the market is again an inversion between cause and effect.

Question 379 *What is wrong with producing something that is useful to others, and that can be offered at such a price that it can be sold?* 2013fa, 2011fa.

We have arrived back at the quid pro quo, but this time as practical actions of the commodity producers. Marx is retracing his steps, endowed now with a fuller understanding. Next, he revisits the three discrepancies between form and content. What new things can we say about them, knowing now of the practical activity of the producers?

The next three long paragraphs form a unit which is broken out here as section 1.4.d. However the first of these paragraphs begins with a three-sentence summary of the results of section 1.4.b, therefore it will be discussed already here. It emphasizes what the social relations of commodity production are for the individuals in those relations:

84:1/o People therefore bring the products of their labor in relation to each other as *values* not because they regard these objects as *the mere material shells* of homogeneous

88:1 Die Menschen beziehen also ihre Arbeitsprodukte nicht aufeinander als *Werte*, weil diese Sachen ihnen als *bloß sachliche Hüllen* gleichartig menschlicher Arbeit

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human labor. They proceed in the reverse order: by equating, in the exchange, the different *products to each other as values*, they equate their own different labors as human labor. They do this without knowing it.²⁷

gelten. Umgekehrt. Indem sie ihre verschiedenartigen *Produkte einander* im Austausch *als Werte* gleichsetzen, setzen sie ihre verschiedenen Arbeiten als menschliche Arbeit gleich. Sie wissen das nicht, aber sie tun es.²⁷

Question 383 *Think of a situation where someone, for whom equalization of labor is a consciously agreed social principle, would act differently than someone, for whom equalization of labor is the unintended effect of competitive struggles. 2013fa, 2012fa.*

Not even the producers themselves are aware of the character of the social bonds which organize production. Their practical activity tells them every day that they are dealing with things, not with other participants in the social production process. They do not view the exchange as an arrangement arising from known social conditions, or serving certain agreed-on social purposes which go beyond exchange itself, but as a given environment in which they have to protect themselves from market sanctions and/or exploit market opportunities. They have a relationship with other producers, but this relationship goes through their products. Footnote 27 emphasizes this:

²⁷ Therefore, when Galiani said: Value is a relation between persons ('La Ricchezza è una ragione tra due persone') he ought to have added: a relation concealed beneath a material shell. Galiani [Gal03, t. 3, p. 221]

²⁷ Wenn daher Galiani sagt: Der Wert ist ein Verhältnis zwischen Personen—"La Ricchezza è una ragione tra due persone"—, so hätte er hinzusetzen müssen: unter dinglicher Hülle verstecktes Verhältnis. Galiani [Gal03, vol. 3, p. 221]

Question 384 *Discuss in detail the points of contact between footnote 29 and the argument in the main text.*

Marx's gentle correction of Galiani's omission foreshadows a critique of classical political economy which will be made more explicit in subsections 1.4.d and 1.4.f. Classical economists are trying to decipher the forms, unveil their hidden content, but the fact *that* the social relationship is hidden does not seem noteworthy to them—and even less, of course, are they concerned with the reasons *why* it is hidden.

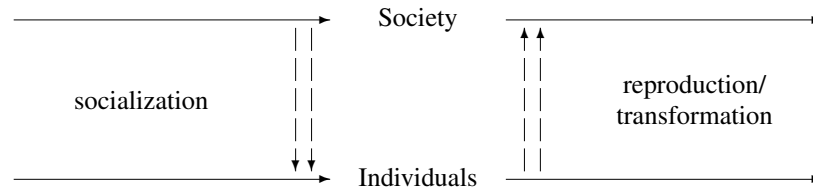
1.4.c. [The Dimension of Individual Agency in Capitalism]

For a moment I will suspend all the doubts, qualifications, and puzzles regarding Marx's view, and try to put the pieces together in a way that seems appealing from the point of view of modern Marxism. I do not claim that what I am going to write now follows from Marx's own words, but I also do not think it is incompatible with what Marx wrote. If nothing else, I will, by revealing my own position, allow the reader to judge better whether I read something into Marx's text that isn't there.

The secret of the fetish-like character of the commodity is the atomistic and individualistic behavior of the producers. Embdded into a closely interlinked society, they act like self-sufficient producers isolated from and even in an antagonistic relation with others. They do not make themselves aware of the larger social connection in which they stand. Although they do not produce their own use-values, they maintain this mentality because they privately produce things that contain as much as possible of that mysterious value quasi-material—they "make money."

This false consciousness is generated by their practical activities which have to respond to the necessity to succeed in the market. While in many other instances, Marx explains false consciousness by surface appearances, which are often so impenetrably false that it is a major scientific accomplishment to crack them (e.g., the wage form), only a moment's reflection on this atomistic consciousness will reveal that it cannot be correct. After all, people use each other's products! The economic fiction of isolation and self-sufficiency stands in stark contrast to the pervasive and increasing interdependence of modern societies. In personal relations, the other individuals turn out to be far less antagonistic than their economic role forces them to be. Any efforts for goal-oriented rational practice must come to consider the reliance on the market as an alien element and source of disturbances. This atomistic consciousness is therefore not automatically propagated by the surface appearances of capitalism, but must rely on indoctrination and taboo. There are a number of institutions and belief systems which support it, from the emphasis on competition in schools, to the democratic form of state, which is careful to give people the illusion of having input into society without stirring them out of their political abstinence, from the ideologies of solipsism to the invisible hand and the dogma that planned economies cannot function.

One cannot reduce society to the individual, i.e., one cannot say that people cause capitalism by their behavior. But neither can one reduce the individual to society, i.e., consider individuals as the passive and "innocent" victims of an overpowering social order. After all, it is their individual behavior through which society exists and reproduces itself. Bhaskar represents this model of the society/person connection as in this table here. Bhaskar epha-



Model IV: The Transformational Model of the Society/Person Connection.

sized this two-track ontology of societies and defended it against the widespread error of collapsing them, see for instance [Bha79, pp. 39–47]. According to this stratification, the atomistic consciousness of the individual is one of the synchronic presuppositions on the individual level making capitalist social relations possible. An economic theory of capitalism cannot explain it, but can merely show that a market economy would not function without it. I think there is some truth in this: sociological investigation can only describe the mechanisms by which individual activity is kept in the bounds necessary for the social apparatus to function. It cannot explain why the individuals submit to these mechanisms.

But there may be a flaw in Bhaskar: those two levels which are separated are unsatisfactory. Also the complete separation between social behavior and group behavior is unsatisfactory. Marx tries to give the direct interactions, i.e., the group behavior, in production a privileged position. He also treats the interaction between social and individual as a form-content matter. There he goes an extra step which Bhaskar did not go. The social is an organism which has its own laws and its own constraints; there is a metabolism, it must see to it that the individuals of which it consists are fed, that their labor is allocated, etc. This cannot solely be captured by saying it is interactions, social roles, skills, expectations. This is not what a society can live on. These are the forms in which that social apparatus interfaces

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with the individual dimension.

The separation of these levels has important consequences for the theory of history. While social relations are newly formed in every mode of production, and there is no general law governing their transitions, the individual attitudes towards oneself and other members of society go through a development process spanning several modes of production.

Historians must not only look at social and individual levels as separate but interacting layers of reality, but also at the evolution of their relation. Individuals never had control over the structure of their society. But this comes to a head in commodity-producing societies where these social relations confront the individuals as things with supranatural properties—but things, nevertheless, which they attempt to use as means for their individual purposes. Due to the resulting dynamics, the lack of individual control becomes an obstacle for the reproduction of society. The commodity fetishism section is important because it shows the direction in which interpersonal attitudes have to evolve, if individuals want to gain greater control over their social relations and their social productive powers.

1.4.d. [The Necessity of Bourgeois Political Economy]

The “secret” of the fetish-like character of the commodity is that not even the commodity producers have a clear awareness of the social relations guiding production. The fog of the market has penetrated into production, into that sphere of social life where rationality should reign. Since the fog of the market is so pervasive, science is necessary for the individual in society to understand their society. The following sentence from the first edition 46:2/o aptly defines the subject of section 1.4.d:

First, their relationship exists practically.
Secondly, however, since they are humans,
their relationship exists as a relationship for them.

Erst ist ihr Verhältnis praktisch da. Zweitens
aber, weil sie Menschen sind, ist *ihr Verhält-*
nis als Verhältnis für sie da.

The word “*Dasein*” is hidden in
both sentences. One should not

translate it as “exists,” but I haven’t
thought of a good way to capture this.

↑ The theme that people in commodity society first act then think will be taken up in chapter Two, 97:0b–97:1.

The next three paragraphs look at the explanations which the agents come up with in their efforts to solve the riddles encountered in their practical activity. Marx considers the mainstream economics of his time (which he calls “bourgeois political economy”) to be a systematic compilation of such explanations. In these three paragraphs, the three determinations of value are taken up again in order.

The first paragraph discusses (α) the *substance of value*. We already discussed the introductory passage of 84:1/o, which summed up once more how the commodity’s fetish-like character originates. After pointing out that even those engaged in direct production are ignorant of the basic character of their own economic relations and do not mean to do what they are actually doing, Marx continues:

Value, therefore, does not have it written on
its forehead *what* it is.

Es steht daher dem Wert nicht auf der Stirn
geschrieben, *was* er ist.

↑ “What it is” means: what the *quality* of value, i.e., value does not have written on its forehead that it is congealed abstract human labor. The market participants affirm, with every exchange they make, that their commodities are equal. Marx’s analysis tried to show

that this equality comes from the equality of abstract labor. But when Marx looks at the practical activity of the laborers in the production process, i.e., at the practical activity of those whose labor is equalized, he finds that they are not equalizing their labors willingly. They are not even aware that they are equalizing their labors. Rather, for them the labor process has become schizophrenic—because they have to fit their labors together with the labors of others, but they are not allowed to cooperate directly. Marx calls this schizophrenia the double character of labor. It is not something which could be remedied by telling them: “can’t you open your eyes? What you consider attributes of your product are really your social relations.” They have no choice but to channel their social relations through the products, because this is the only channel they have. Since not even the laborers are aware that they are equalizing their labors, nobody else in society is aware of it either. This is what Marx wanted to express with the forehead metaphor.

Question 386 Explain Marx’s metaphor that “value does not have it written on its forehead what it is.” Later in the commodity fetishism section, Marx uses the same metaphor “written on the forehead” again in a slightly different context. Compare what he says that second time with what he says here. [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#), [2000fa](#), [1999SP](#), [1998WI](#), [1997sp](#), [1997WI](#), [1996sp](#).

Since it is not obvious what value is, value becomes the object of scientific analysis:

Value transforms every product of labor into a social hieroglyphic. Later on, people try to decipher the hieroglyphic, to get behind the secret of their own social product. (The determination of the useful articles *as values* is *their* social product as much as language is.)

Der Wert verwandelt vielmehr jedes Arbeitsprodukt in eine gesellschaftliche Hieroglyphe. Später suchen die Menschen den Sinn dieser Hieroglyphe zu entziffern, hinter das Geheimnis ihres eigenen gesellschaftlichen Produkts zu kommen, denn die Bestimmung der Gebrauchsgegenstände *als Werte* ist *ihr* gesellschaftliches Produkt so gut wie die Sprache.

Instead of “the secret of their own social product,” the French edition says “the secrets of the social

product to which they contribute” (les secrets de l’oeuvre sociale à laquelle ils contribuent). This is a

more transformational outlook.

A market which follows laws beyond the control of producers and traders is as contradictory as a text which cannot be read by its own writer. But this contradiction is not addressed by bourgeois economists. They simply use scientific tools to decipher these hieroglyphics, and they eventually succeed. But the special situation of individuals living in capitalist society, namely, that the objects of their scientific research are the result of their own activity, demands that they should do more: not just deciphering their own relations after the fact, but take control over their social relations so that they won’t take the form of hieroglyphics in the first place. This the individuals do not do, and this is why Marx says their fetishism persists even after they have found out that value comes from labor.

The belated scientific discovery that the products of labor, in so far as they are values, are merely the bodily expressions of the human labor expended to produce them, marks an epoch in the history of mankind’s

Die späte wissenschaftliche Entdeckung, daß die Arbeitsprodukte, soweit sie Werte, bloß sachliche Ausdrücke der in ihrer Produktion verausgabten menschlichen Arbeit sind, macht Epoche in der Entwick-

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development, but by no means banishes the illusion that the social characteristics of labor seem to be physical characteristics of the products. Something which is only valid for this particular form of production (production of commodities), namely, that the specific social character of the independent private labors consists in their equality as human labor and assumes the form of the value-character of the product, appears to those entrapped in the relations of commodity production as a natural fact that cannot be changed. Even after the above-mentioned scientific discovery, the value-character of the product seems an immutable given to them, just as the scientific dissection of the air into its component parts leaves the atmosphere itself unaltered in its physical configuration.

lungsgeschichte der Menschheit, aber verschleucht keineswegs den gegenständlichen Schein der gesellschaftlichen Charaktere der Arbeit. Was nur für diese besondere Produktionsform, die Warenproduktion, gültig ist, daß nämlich der spezifisch gesellschaftliche Charakter der voneinander unabhängigen Privatarbeiten in ihrer Gleichheit als menschliche Arbeit besteht und die Form des Wertcharakters der Arbeitsprodukte annimmt, erscheint, vor wie nach jener Entdeckung, den in den Verhältnissen der Warenproduktion Befangenen ebenso endgültig als daß die wissenschaftliche Zersetzung der Luft in ihre Elemente die Luftform als eine physikalische Körperform bestehen läßt.

As on some other places, I went out on a limb with this translation, but some of it can be justified by the French edition. In French, “*verscheucht keineswegs den gegenständlichen Schein der*

gesellschaftlichen Charaktere der Arbeit” is translated with “ne dissipe point la fantasmagorie qui fait apparaître le caractère social du travail comme un caractère des choses, des produits eux-mêmes.”

(The word *phantasmagorisch* was also used in 82:3/o.) And “*ebenso endgültig*” is elaborated in French as: “tout aussi invariable et d’un ordre tout aussi naturel.”

The discovery that air is a mixture of certain other gases will of course leave the chemical makeup of the air unchanged. However if a basic discovery in the social sciences has no impact on the (now better understood) social relations, then this is remarkable. In section 1.4.b, Marx had argued that the secret, the root cause, of the fetish-like character of the commodity lies in the fact that the producers do not experience their labors as equal. The most basic principle governing market relations is not even part of the consciousness of the laborers themselves. This makes it impossible to become part of the common consciousness.

Still Marx lived in a paradoxical situation. If the knowledge that value is based on labor is so important, why did the scientific discovery by the classical economists not remove this fetish-like character? How dangerous this insight was for capitalism can be judged from the fact that, after Marx, the labor theory of value was abandoned by the mainstream. Its place was taken by a theory which anchored capitalist relations in human psychology, i.e., the immutability of capitalism was written into the theory itself. This leads to a second transformation of fetishism, which Marx did not live to see: according to mainstream theory today, the disadvantages of capitalism are believed to be anchored in human nature, instead of people recognizing that they are brought about by a very special social form of organizing production.

Exam Question 388 *If someone understands that value comes from society and not from nature, how can that person still have a fetishistic view of social relations under capitalism?* 2013fa, 2011fa, 2010fa, 2009fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP, 1998WI.

Question 389 Marx criticizes in 166:2/o that even after the discovery of labor as the substance of value, this was generally considered an “immutable fact.” What else should people have thought and done? 2013fa, 2012fa, 2011fa, 2010fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa.

Of course, even if people understand the laws of their society, they still cannot immediately abolish these laws. It requires hard work and struggles, and it will be a long process before social relations have attained a more desirable form. In the preface to the first edition, 9:4/o, Marx writes:

Even when a society has got upon the right track for the discovery of the natural laws of its movement ..., it can neither clear by bold leaps, nor remove by decree, the successive phases of its natural development. But it can shorten and lessen the birth-pangs.

The next paragraph, whose secret organizing principle is (β) the *magnitude of value*, describes how the producers’ practical activities generate the need to resolve certain *limited* theoretical questions.

85:1/o The first thing the producers need to know in practice when they exchange their products is, how much of the other products will they get for their own—in which proportions can the products be exchanged?

89:1 Was die Produktentauscher zunächst praktisch interessiert, ist die Frage, wieviel fremde Produkte sie für das eigne Produkt erhalten, in welchen Proportionen sich also die Produkte austauschen.

Again I can justify my translation by pointing to the French, where

“*die Frage*” is translated with “de savoir,” i.e., this first sentence

indeed discusses the *knowledge* they are interested in.

↑ Marx referred to the needs of the practical commodity traders to know the quantitative proportions already in footnote 17 to paragraph 59:3/o in section 1.3.A: “The few economists, ... who have concerned themselves with the analysis of the form of value, were unsuccessful, ... because, under the crude influence of the practical bourgeois, they give their attention from the outset, and exclusively, to the quantitative aspect of the question.”

As soon as these proportions have attained a certain customary fixity, they seem to spring from the nature of the products. That one ton of iron and two ounces of gold have equal value is considered a similar fact as that a pound of gold and a pound of iron are equal in weight, despite their different physical and chemical properties.

Sobald diese Proportionen zu einer gewissen gewohnheitsmäßigen Festigkeit herangereift sind, scheinen sie aus der Natur der Arbeitsprodukte zu entspringen, so daß z.B. eine Tonne Eisen und 2 Unzen Gold gleichwertig, wie ein Pfund Gold und ein Pfund Eisen trotz ihrer verschiedenen physikalischen und chemischen Eigenschaften gleich schwer sind.

The fixity of the exchange proportions allows the producers to forget that value relations are social. However this fixity can only be achieved through continual fluctuations:

Indeed, the value character of the products of labor affirms itself only through their play as magnitudes of value.

In der Tat befestigt sich der Wertcharakter der Arbeitsprodukte erst durch ihre Betätigung als Wertgrößen.

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This “play” of the quantities of value is caused by people’s attempts to take advantage of the value proportions. Although the commodity producers, in their practical actions, only pay attention to the quantity of value and not its quality, Marx says here, in a very abbreviated fashion, that this one-sided interest in quantity leads them to act in such a way that they give their labor the qualitative character of equal human labor, i.e., of value-creating labor. This is a dialectical conversion of quantity into quality.

Here is an attempt, which goes beyond Marx’s text, to describe in more detail how the products’ play as magnitudes of value affirms their value character. Since the exchange proportions seem to come from the nature of the product, and not from the labor process, the producers try to escape the quantitative link between labor and value by producing that use-value and employing that production method which gives them the most favorable exchange for the effort they put in. They use two main strategies to achieve this:

- On the one hand, they channel their labors into those branches of production which the market rewards best in relation to their effort.
- On the other hand, in every given branch of this division, they systematically explore the range of what can be done differently in order to gain an advantage over those with whom they compete.

These conscious actions have the following unintended consequences:

- The calculation regarding the market demand integrates their labor, according to its particularities, into the social division of labor.
- The active pursuit of the best production process causes them to end up with very similar labor processes, since everyone does that in parallel and since they also learn from each other.

Consistent with this interpretation, the first edition, [megaII/5]46:2/o, has the poignant formulation “in order to relate their products as commodities, men are *forced* to equate their different labors to abstract human labor” (my emphasis).

One can sum it up as follows: Although their considerations only center around a quantitative advantage, the producers are forced to make important qualitative changes in the production process if they want to stay competitive in the market, while their efforts to get ahead of the market can only have temporary success. In the long run, the market will catch up with them again.

Question 391 *Do you know other examples in Capital where Marx describes a transition from quantity to quality?* [2011fa](#).

Question 392 *Commodity producers do not exchange their products because they consider the labor in these products to be equal and therefore believe the fruits of the labor should be distributed on an equal basis. Marx claims that, on the contrary, the market interactions induce them to unknowingly equalize their labors. Describe the process by which they equalize their labors, and the goals which they pursue in this process.* [2012fa](#), [2011fa](#), [2010fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#), [2000fa](#), [1997ut](#), [1997sp](#), [1996sp](#).

Question 394 *Someone says: The law of value cannot hold. We are free people, we do what we want. We are not forced to price our commodities by their labor content. Explain to this person, along the lines of the argument Marx uses here, that this myopic attempt to assert one's freedom leads to unfreedom.* [2013fa](#), [2012fa](#), [2011fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2004fa](#), [2003fa](#), [2002fa](#), [1997sp](#), [1996ut](#), [1996sp](#), [1995ut](#), [1995WI](#).

This is the circularity (p. 189 above) in action. Producers encounter social constraints (the quantitative exchange relations of the goods on the market) and try to turn them to their advantage, using similar methods as those with which they have successfully conquered nature. But this time, their efforts to get ahead fail; even worse, in these efforts they are unwittingly carrying out the “orders” dictated by the law of value. In *Results*, Marx says explicitly that the capitalists, in their efforts to outwit the law of value, implement it.

Which difference between the laws of nature and the laws of the market is responsible for the fact that humans, who have been very successful in becoming the masters of *natural* forces, remain the servants of their own social relations when they try to take advantage of the *social* properties of the objects they are handling? Answer: the laws of nature remain unchanged regardless of what people do. By contrast, the producers’ reactions to the prices cause these prices to change. To use the terminology of Critical Realism, transitive and intransitive dimensions are not clearly separated here. This is why it is not the social forces which are instrumentalized, but people’s efforts to instrumentalize the social forces:

These magnitudes vary continually, independently of the will, foreknowledge and actions of the exchangers. Their own social movement has for them the form of a movement of things—things which, far from being under their control, in fact control them.

Die letzteren wechseln beständig, unabhängig vom Willen, Vorwissen und Tun der Austauschenden. Ihre eigne gesellschaftliche Bewegung besitzt für sie die Form einer Bewegung von Sachen, unter deren Kontrolle sie stehen, statt sie zu kontrollieren.

↑↑ Note that Marx is no longer only talking about mystery, but about lack of control. This last sentence indicates that perhaps Marx was thinking along the lines which I am developing in my commentary here. People think they control the social powers of things (just as they do control their natural powers), but this is an illusion.

Question 395 *Isn't there an inconsistency in Marx's text? At the beginning of paragraph 167:1/o, the fixity of commodity prices is stressed, while towards the end of the same paragraph 167:1/o, Marx emphasizes that they fluctuate continually.* *Answer,* [2013fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2000fa](#), [1998WI](#).

The production of commodities must be fully developed before the scientific insight emerges, from experience itself, that all the different kinds of private labor (which are carried on independently of each other, and yet, as *spontaneously developed branches of the social division of labor*, are all-round dependent on each other) are continually being reduced to the measure in which they are socially necessary.

Es bedarf vollständig entwickelter Warenproduktion, bevor aus der Erfahrung selbst die wissenschaftliche Einsicht herauswächst, daß die unabhängig voneinander betriebenen, aber als *naturwüchsige Glieder der gesellschaftlichen Teilung der Arbeit* allseitig voneinander abhängigen Privatarbeiten fortwährend auf ihr gesellschaftlich notwendiges Maß reduziert werden, ...

The unpredictable *changes* of the exchange proportions interfere with the efforts of the agents to use these proportions to their advantage. This causes them to wonder how the

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magnitude of value is determined, and leads to the scientific discovery of socially necessary labor-time as the underlying principle.

However the reader should be aware that this scientific effort is only a very superficial resolution of the dilemma faced by the market participants. Although they systematically try to instrumentalize for individual advantage the powerful social forces exhibited by the market, they find that they remain at the mercy of blind objective laws, under the control of things. Instead of wondering *how they came into this predicament*, so that they can wrest control away from these things, they use science to understand *how the things move that control them*, in the hope that in this way they can “outwit” them or at least arrange themselves better with them. This is called a “TINA compromise.” (TINA = There Is No Alternative.)

In the accidental and ever-fluctuating *exchange proportions between the products*, the labor-time socially necessary to produce them asserts itself violently as a regulative *law of nature*. This law asserts itself like the law of gravity asserts itself when a person’s house collapses on top of him.²⁸

... weil sich in den zufälligen und stets schwankenden *Austauschverhältnissen ihrer Produkte* die zu deren Produktion gesellschaftlich notwendige Arbeitszeit als regelndes *Naturgesetz* gewaltsam durchsetzt, wie etwa das Gesetz der Schwere, wenn einem das Haus über dem Kopf zusammenpurzelt.²⁸

If the house collapses, the law of gravity asserts itself *despite* the attempts of the builder to control it. Obviously, engineers have learnt to build houses that do not collapse. Marx’s point is that such a learning process has not taken place (and in fact cannot take place) in commodity production. The structures built by commodity producers in order to benefit from commodity prices keep collapsing. Individual efforts to consciously regulate social relations to their benefit eventually fail—not only this, but their efforts contribute to the workings of a quasi-natural law which the individuals do not control. ↓ The footnote brings a quote from the young Engels which links the workings of the laws of the capitalist economy to the blindness of the individuals participating in the economy:

²⁸ ‘What are we to think of a law which can only assert itself through periodic crises? Well, it is a *natural law that is based on the lack of awareness of the people who are subjected to it*’. [mecw3]433/34.

²⁸ “Was soll man von einem Gesetz denken, das sich nur durch periodische Revolutionen durchsetzen kann? Es ist eben ein *Naturgesetz, das auf der Bewußtlosigkeit der Beteiligten beruht*.” Friedrich Engels, [mecw3]433/34.

The formulation “law *based on* the lack of awareness of the people who are subjected to it” (my emphasis) implies that people act in a certain way *because* they are unaware. This does not mean that consciousness determines their social being, but that the mechanisms by which the blind social forces take precedence over individual goals are based on (i.e., cannot be effective without) a lack of consciousness on the part of the individuals.

The determination of the magnitude of value by labor-time is therefore a secret hidden under the apparent movements of the relative magnitudes of commodity values. By uncovering this secret, the semblance of a merely accidental determination of the magnitude of value of the products of labor is removed, but the objectified form in which this determination takes place is by no means abolished.

Die Bestimmung der Wertgröße durch die Arbeitszeit ist daher ein unter den erscheinenden Bewegungen der relativen Warenwerte verstecktes Geheimnis. Seine Entdeckung hebt den Schein der bloß zufälligen Bestimmung der Wertgrößen der Arbeitsprodukte auf, aber keinesfalls ihre sachliche Form.

1.4. Fetish-Like Character and its Secret

The scientific efforts described in the preceding two long paragraphs are in both cases strangely impotent. Although necessitated by the fetish-like character of the commodity, they do not help overcome it. The next paragraph explains this impotence. It centers about point (γ), *the form of value*.

86:1/o Man's thought about the forms of social life, and therefore also his scientific analysis of these forms, takes a course directly opposite to the actual development of these forms. He begins 'after the feast' with the completed results of the development process.

89:2/o Das Nachdenken über die Formen des menschlichen Lebens, also auch ihre wissenschaftliche Analyse, schlägt überhaupt einen der wirklichen Entwicklung entgegengesetzten Weg ein. Es beginnt post festum und daher mit den fertigen Resultaten des Entwicklungsprozesses.

This translation benefited from the Eden and Cedar Paul translation. In Fowkes's translation, reflection

begins "after the feast, and therefore with the results of the process of development ready to

hand." This wrongly pulls the word "*fertig*" from the ontological into the epistemological sphere.

The purposeful activity of individuals differs in an important way from the dynamics of their social relations. *Individual* human activity is characterized by its intentionality:

... what distinguishes the worst of architects from the best of bees is that the architect builds the cell in his mind before he constructs it in wax. 187:2/o.

In *social* life however, people first act and then think:

In their difficulties our commodity-owners think like Faust: 'In the beginning was the deed'. They have therefore already acted before thinking. The natural laws of the commodity manifest themselves (*betätigen sich*) in the natural instincts of the commodity owners. 97:0b–97:1.

Among the mechanisms that cause the suspension of human intentionality on the social level, Marx singles out here the passivity of everyday thinking. The word "*Nachdenken*," here translated as "reflection," has, in German, a quite passive connotation. It evokes someone sitting on a couch, smoking his pipe, relaxing, and "thinking." A similar passivity characterizes the forms of thinking described in the previous two paragraphs.

- Under point (α), 84:1/o, people's everyday thinking stumbled upon a glaring contradiction, the fact that people's own social product is not transparent to them. They try to (and finally succeed in) solving the riddles their own activity poses, without ever raising the critical question how it happens that their own activity presents riddles in the first place.
- Under point (β), 85:1/o, theoretical activity was kindled by their efforts to succeed in the market place. This again lacked any motivation to ask the more fundamental critical questions—on the contrary, the agents were interested in an affirmation of what they were doing.
- Point (γ), which we are discussing at present, brings a third cognitive obstacle to an effective scientific analysis: The forms of social life, which are the *result* of the relations individuals enter in production and daily life, are at the same time the *starting point* for their reflection (*Nachdenken*) about it.

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In sum, practical life not only furnishes the motivation for science, but also presents many obstacles. Science, by its nature, cannot be a passive or automatic process. Just as production is necessarily “work” (the formulation in 82:1 that labor is *essentially* the expenditure of human labor-power), science is “work” as well.

The social forms which stamp products as commodities, which they therefore must possess before they can circulate as commodities, have already acquired the fixity of natural forms of social life, before man seeks to give an account, not of the historical character of these forms—for in his eyes they have already become immutable—but of their content.

Die Formen, welche Arbeitsprodukte zu Waren stempeln und daher der Warenzirkulation vorausgesetzt sind, besitzen bereits die Festigkeit von Naturformen des gesellschaftlichen Lebens, bevor die Menschen sich Rechenschaft zu geben suchen nicht über den historischen Charakter dieser Formen, die ihnen vielmehr bereits als unwandelbar gelten, sondern über deren Gehalt.

Bourgeois economics has an additional incentive to persist in the mistake of starting its analysis with the finished forms, which are too mystified to reveal the true underlying relations: since bourgeois economics cannot admit that capitalism is a historically conditioned and historically limited mode of production, it cannot look at it as a historical process.

In the remainder of the paragraph, Marx gives a concrete example of a finished form that obfuscates rather than reveals:

It was only the analysis of the prices of commodities which led to the determination of the magnitude of value, and only the common expression of all commodities in money which led to the fixation of their character as values.

So war es nur die Analyse der Warenpreise, die zur Bestimmung der Wertgröße, nur der gemeinschaftliche Geldausdruck der Waren, der zur Fixierung ihres Wertcharakters führte.

I.e., research started when some striking empirical phenomena had arisen which cried out for an explanation. But this is already too late:

It is however precisely this finished form of the world of commodities—the money form—which conceals the social character of private labor and therefore the social relations between the private producers behind quasi-physical properties of things, instead of revealing these relations plainly.

Es ist aber ebendiese fertige Form—die Geldform—der Warenwelt, welche den gesellschaftlichen Charakter der Privatarbeiten und daher die gesellschaftlichen Verhältnisse der Privatarbeiter sachlich verschleiert, statt sie zu offenbaren.

In support of the claim that the money form conceals, Marx describes next what “plainly revealing” would have meant in this situation:

If I say that coats or boots relate to linen as the general incarnation of abstract human labor, it is plain how bizarre an expression this is. The producers of coats and boots, however, when they relate their commodities to linen (or to gold and silver, which does not change the matter in the least) as the General equivalent, experience and express the relation of their own private labor to the aggregate labor of society in exactly this bizarre form.

Wenn ich sage, Rock, Stiefel, usw. beziehen sich auf Leinwand als die allgemeine Verkörperung abstrakter menschlicher Arbeit, so springt die Verrücktheit dieses Ausdrucks ins Auge. Aber wenn die Produzenten von Rock, Stiefel, usw. diese Waren auf Leinwand—oder auf Gold und Silber, was nichts an der Sache ändert—als allgemeines Äquivalent beziehen, erscheint ihnen die Beziehung ihrer Privatarbeiten zu der gesellschaftlichen Gesamtarbeit genau in die-

ser verrückten Form.

These two sentences deserve a close reading. Let us first look at the first sentence.

If it were possible to see the invisible content behind the form—if one could, so-to-say, take an X-ray look at the relations of production underlying the exchange—one would see with amazement that the producers relate their concrete labors to the labor producing gold as the incarnation of human labor in the abstract, although the labor producing gold is just as concrete as any other labor. Everybody would be aware that this is a bizarre and deficient method of establishing a connection between the many interdependent labor processes. In the first edition, 37:1, in what was to become section 3 of chapter One, Marx brings an interesting metaphor to show how bizarre this is:

It is as if, besides lions, tigers, hares, and all other real animals, ... also *the animal* existed, the individual incarnation of the whole animal kingdom.

Es ist als ob neben und außer Löwen, Tigern, Hasen, und allen andern wirklichen Tieren ... auch noch *das Tier* existierte, die individuelle Inkarnation des ganzen Tierreichs.

It would not only be bizarre, but it would also be easy to see that it is bizarre.

Before we go to the second sentence, which presents the difficulty, let's look at the difference between first and second sentences. The first sentence uses the words "general incarnation of abstract human labor," which is a category of production, while the second sentence speaks of the "General equivalent," which is a surface category. Also, the first sentence states that it is an obviously bizarre relation, but Marx does not use the word "form." He does use the word "expression," but by this he means his verbal representation of the core relations ("if I say").

In the second sentence, Marx turns off the X-ray machine of his scientific analysis and looks at the form in which these bizarre relations present themselves to the practical surface activity. The fact that coat, boots, etc. are placed in relation to gold as the General equivalent is no longer obviously bizarre, on the contrary, it is a sensible procedure growing out of the necessities of exchange. But these sensible practical activities engage the economic agents in bizarre relations of production in the core. The forms themselves only become bizarre if one sees this content in them, i.e., if one recognizes that they mediate the relationship of the producers's private labor to the social aggregate labor.

Marx has chosen here a very nice example showing how the finished forms conceal. The surface forms are "finished" in a fashion which gives them practical applicability. But the practical usefulness of these forms on the surface veils the bizarre character of the core relations mediated by them.

Question 396 *Why can empiricism, the starting with and clinging to empirical facts, only come to conclusions that affirm existing social relations?* 2011fa, 2007SP, 2004fa, 2002fa, 1997ut, 1996sp, 1995ut, 1995WI.

Question 397 *Where else should one start science if not with data? How did Marx himself come to his findings?* 2013fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1998WI.

After this serious critique of bourgeois economics, Marx, surprisingly, nevertheless attributes "social validity" to it:

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87:1 It is precisely forms of this kind which yield the *categories* for bourgeois economics.

90:1 Derartige Formen bilden eben die *Kategorien* der bürgerlichen Ökonomie.

“Forms of this kind” refers to the finished surface forms, the bizarre (*verrückten*), false social forms, which veil the underlying relations. A “category” is a fundamental classification, something that can serve as starting point for an explanation but which itself cannot be explained. Bourgeois economics does not start with the fundamental underlying relations but with their bizarre surface reflections. Marx will remark on this again on p. 537:2, when he discusses capitalism’s false form par excellence, namely, the wage form. There as well as here Marx makes the argument that the erroneous view of the world generated by these surface categories cannot just be dismissed as a collection of subjective errors, but it has objective significance since it guides human actions:

These categories are socially accepted, and therefore objective, forms of thought for the relations of production of *this historically determined* social mode of production, namely, commodity production.

Es sind gesellschaftlich gültige, also objektive Gedankenformen für die Produktionsverhältnisse *dieser historisch bestimmten* gesellschaftlichen Produktionsweise, der Warenproduktion.

This translation assumes that the “*es sind*” (it is) at the beginning of this sentence refers to “categories,” or, more precisely, to those theories which are taken as

categories by bourgeois economy, not to “forms.” Grammatically this might easily be the case, especially since Marx wrote “*es sind*” instead of “*sie sind*,” and

also from the meaning I find it unlikely that Marx equates social forms with forms of thought.

Question 399 In 169:1, Marx calls the superficial understanding of the agents in capitalist society, their forms of thought, “socially accepted” or, in a more literal translation, “socially valid” and “objective.” Shouldn’t he have called them “false” instead of “valid” and “subjective” instead of “objective”? 2013fa, 2012fa, 2011fa, 2007fa, 2007SP, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1998WI, 1996ut.

Although bourgeois economics clings to the surface, it *is* valid: not because it reveals the inner structure of the commodity economy, but because it formulates its *forms of thought*, i.e., the spontaneous thinking which these relations of production induce in the practical agents. Marx calls these forms “valid” and “objective” without further elaboration at this point. But in 80:1 in section 1.3.C, Marx already talked about “objective fixity and general social validity.” Since he already said that bourgeois economics was the scientific extension of the consciousness of the practical agents in the market, we can conclude from this that the validity and objectivity of these false appearances consists in the fact that they direct the activities of the economic agents on the surface of the economy.

The validity of these categories, whether they help us understand the inverted forms of appearance on the surface or the deep structure of the relations of production, must be qualified as indicated by the italicized phrase in the passage we just read: these categories are valid only historically. This gives the transition to section 1.4.e, the discussion of other societies.

The whole mystery of commodities, all the magic and necromancy that surrounds the products of labor on the basis of commodity production, vanishes therefore as soon as we take refuge in other forms of production.

Aller Mystizismus der Warenwelt, all der Zauber und Spuk, welcher Arbeitsprodukte auf Grundlage der Warenproduktion umnebelt, verschwindet daher sofort, sobald wir zu andren Produktionsformen flüchten.

1.4.e. [Examples of Non-Commodity Societies and the Role of Religion]

In 87:2–89:1, Marx gives examples of societies in which commodity production is *not* predominant, i.e., in which, as he says in [megaII/6]38:1, labor is not, as in commodity production, private labor which at the same time keeps its provider alive only as social labor.

die Arbeit nicht wie in der Waarenproduktion Privatarbeit ist, die zugleich nur als gesellschaftliche Arbeit ihren Verrichter am Leben erhält.

Although labor does not create value in these societies, “all essential determinations of value” can nevertheless be found. They are (α) the equality of all human labor insofar as it is expenditure of human labor-power, (β) the social significance of labor-time, and (γ) the existence of interactions between the producers through which their labors are integrated into the social labor process. The forms which (α), (β), and (γ) take may involve coercion and exploitation, but they are not mysterious. When discussing medieval society, Marx makes an important connection: if social relations are this transparent, exploitation is only possible through the direct exercise of force. He does not explicitly state the implication of this for capitalism: it can do away with the continual use of direct force only at the expense of being mystified.

At the end of this subsection, Marx looks at the character of religion in different societies. He claims that religion reflects the quality and transparency of social relations.

But now let us start with the detailed discussion:

87:2/o As political economists are fond of Robinson Crusoe stories,²⁹ let us first look at Robinson on his island. Undemanding though he is by nature, he still has needs to satisfy, and must therefore perform *useful labors of various kinds*: he must make tools, knock together furniture, tame llamas, fish, hunt, and so on. Of his prayers and the like we take no account here, since our friend takes pleasure in them and sees them as recreation. Despite the diversity of his productive functions, he knows that they are only different forms of activity of one and the same Robinson, hence only different modes of *human* labor. Necessity itself compels him to divide his *time* with precision between his different functions. Whether one function occupies a greater space in his total activity than another depends on the magnitude of the difficulties to be overcome in attaining the useful effect aimed at. Our friend Robinson Crusoe learns this by experience, and having saved a watch, ledger, ink and pen from the shipwreck, he soon begins like a good Englishman to keep a set of books. His stock-book

90:2/o Da die politische Ökonomie Robinsonaden liebt,²⁹ erscheine zuerst Robinson auf seiner Insel. Bescheiden, wie er von Haus aus ist, hat er doch verschiedenartige Bedürfnisse zu befriedigen und muß daher *nützliche Arbeiten verschiedener Art* verrichten, Werkzeuge machen, Möbel fabrizieren, Lama zähmen, fischen, jagen usw. Vom Beten u. dgl. sprechen wir hier nicht, da unser Robinson daran sein Vergnügen findet und derartige Tätigkeit als Erholung betrachtet. Trotz der Verschiedenheit seiner produktiven Funktionen weiß er, daß sie nur verschiedene Betätigungsformen desselben Robinson, also nur verschiedene Weisen *menschlicher* Arbeit sind. Die Not selbst zwingt ihn, seine *Zeit* genau zwischen seinen verschiedenen Funktionen zu verteilen. Ob die eine mehr, die andre weniger Raum in seiner Gesamttätigkeit einnimmt, hängt ab von der größeren oder geringeren Schwierigkeit, die zur Erzielung des bezweckten Nutzeffektes zu überwinden ist. Die Erfahrung lehrt ihn das, und unser Robinson, der Uhr, Hauptbuch, Tinte und Feder aus dem Schiffbruch gerettet, beginnt als

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contains a catalogue of the useful objects he possesses, of the *different* operations necessary for their production, and finally of the *labor-time* that specific quantities of these products have on average cost him. All the relations between Robinson and these objects that form his self-created wealth are here so simple and transparent that even Mr. Sedley Taylor could understand them. And yet those relations contain all the essential determinations of *value*.

guter Engländer bald Buch über sich selbst zu führen. Sein Inventarium enthält ein Verzeichnis der Gebrauchsgegenstände, die er besitzt, der *verschiednen* Verrichtungen, die zu ihrer Produktion erheischt sind, endlich der *Arbeitszeit*, die ihm bestimmte Quantita dieser verschiedenen Produkte im Durchschnitt kosten. Alle Beziehungen zwischen Robinson und den Dingen, die seinen selbstgeschaffnen Reichtum bilden, sind hier so einfach und durchsichtig, daß selbst Herr M. Wirth sie ohne besondre Geistesanstrengung verstehn dürfte. Und dennoch sind darin alle wesentlichen Bestimmungen des *Werts* enthalten.

The word “different” in “different operations” is underlined in the first edition, p. 45:1, to emphasize

that considered as useful labor, labors are not equal. The Fowkes-translation “various”

misses this, and the Moore-Aveling translation omits this attribute altogether.

Sedley Taylor is a fellow of Trinity College in Cambridge who had tried to slander Marx’s work, as described by Engels in the preface to the fourth German edition, p. .

Of course, it is not an accident that Robinson leads this gallery of examples. Many economics books at Marx’s time start with one-man economies. Every epoch touts its socially created form of the individual as the outgrowth of human nature. See *Grundrisse* 17:1–18:1 and 25:1 about this.

It is almost surprising that Marx did not say more about it here. The atomistic attitude by which everyone considers himself a Robinson is exactly what Marx suspected to be the origin of the fetish-like character of the commodity. Footnote 29 (new in the second edition, although Marx merely quotes himself from his earlier *Contribution*) is, in a veiled form, such a critique:

²⁹ Even Ricardo has his Robinson Crusoe story. ‘Ricardo makes his primitive fisherman and primitive hunter right away exchange their fish and game as owners of commodities, in proportion to the labor-time materialized in these exchange-values. On this occasion he slips into the anachronism of allowing the primitive fisherman and hunter to value their implements in accordance with the annuity tables used on the London Stock exchange in 1817.’

²⁹ Auch Ricardo ist nicht ohne seine Robinsonade. „Den Urfischer und Urjäger läßt er sofort als Warenbesitzer Fisch und Wild austauschen, im Verhältnis der in diesen Tauschwerten vergegenständlichten Arbeitszeit. Bei dieser Gelegenheit fällt er in den Anachronismus, daß Urfischer und Urjäger bei Berechnung ihrer Arbeitsinstrumente die 1817 auf der Londoner Börse gangbaren Annuitätentabellen zu Rate ziehen.“

The annuity tables are not the only anachronism. Exchange itself is already an anachronism. Members of primitive tribes are not isolated individuals who consider their products their private property and have nothing else in common with their fellow tribesmen than the equality of their labors. The dissolution of the social unity into many individuals which we experience in modern capitalism is *not* the natural state; it is the result of a long historical process. Marx just made fun of the methodological individualism of mainstream economists by saying that they “are fond of Robinson Crusoe Stories” (first sentence in 87:2/o), and here he says that not even Ricardo escapes this.

Question 400 Why does Marx call Ricardo's exchange between primitive fisherman and primitive hunter a "Robinson Crusoe story"? [2011fa](#), [2010fa](#), [2009fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#), [2003fa](#), [2002fa](#), [1996sp](#), [1995ut](#), [1995WI](#).

In the conclusion of the footnote, Marx makes fun of Ricardo's lack of any conception about non-capitalist societies:

^{29 ctd} 'It seems that the "parallelograms of Mr. Owen" were the only form of society other than the bourgeois one which Ricardo was acquainted with.' (Karl Marx, "A Contribution etc.," pp. 38, 39.)

^{29 ctd} „Die ‚Parallelogramme des Herrn Owen‘ scheinen die einzige Gesellschaftsform, die er außer der bürgerlichen kannte.“ (Karl Marx, „Zur Kritik etc.“, p. 38, 39.)

'Parallelograms' were, according to the utopian socialist Robert Owen, the best layout for the streets in a worker's settlement, so that everyone has to walk the same distance to the central assembly hall [[Owe13](#)]. Ricardo refers to this in [[Ric22](#), p. 21].

After the footnote let us look at the main text. The essential determinations of value play an important role in Robinson's one-man-society, although they are not expressed in relations between the products. Rather, they are reflected in the uses which Robinson makes of some of the things salvaged from the shipwreck, things which he found ready-made for him because they play important roles also in the society from which his ship came:

- (α) Despite their differences, all labors are performed by the same individual, Robinson.
- (β) Robinson uses his *watch* to keep track of how much labor-time is taken up by his various activities.
- (γ) The decision how to allocate his time efficiently, which is critical for his survival, does not involve a coordination of the actions of different producers, but a coordination between what Robinson does today and what he does tomorrow. Robinson's logbook helps with these decisions.

Question 401 Which "social" forms do the three determinations of value take in Robinson's one-man-society described in 169:2/o? [2011fa](#), [2008SP](#), [2007SP](#), [2003fa](#), [2002fa](#), [1995ut](#).

Since Robinson is alone, no direct coercion is involved. In this respect, Robinson is just the opposite of the example Marx brings next:

88:1 Let us now transport ourselves from Robinson's island, bathed in light, to medieval Europe, shrouded in darkness. Here, instead of one independent man, we find everyone dependent—serfs and lords, vassals and suzerains, laymen and clerics. Personal dependence characterizes the social relations of material production as much as it does the other spheres of life based on that production. But precisely because relations of personal dependence constitute the given foundation, there is no need for labor and its products to assume a fantastic shape different from their reality. They en-

91:1/o Versetzen wir uns nun von Robinsons lichter Insel in das finstre europäische Mittelalter. Statt des unabhängigen Mannes finden wir hier jedermann abhängig—Leibeigene und Grundherrschaft, Vasallen und Lehensgeber, Laien und Pfaffen. Persönliche Abhängigkeit charakterisiert ebenso sehr die gesellschaftlichen Verhältnisse der materiellen Produktion als die auf ihr aufgebauten Lebenssphären. Aber eben weil persönliche Abhängigkeitsverhältnisse die gegebene gesellschaftliche Grundlage bilden, brauchen Arbeiten und Produkte nicht eine von ihrer Realität verschiedene phantastische

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ter the social structure as services in kind and payments in kind. The natural form of labor, its particularity—and not, as in a society based on commodity production, its universality—is here its immediate social form. The *corvée* is as much measured by time as is the labor which produces commodities, but every serf knows that while serving his lord he expends a specific quantity of his own personal labor-power. The tithe owed to the priest is more clearly apparent than the priest's blessing. Whatever we may think, then, of the different character masks in which men confront each other in such a society, the social relations which individuals enter in the labor process do appear here as their own personal relations, and are not disguised as social relations between things, between the products of labor.

Gestalt anzunehmen. Sie geht als Naturaldienste und Naturalleistungen in das gesellschaftliche Getriebe ein. Die Naturalform der Arbeit, ihre Besonderheit, und nicht, wie auf Grundlage der Warenproduktion, ihre Allgemeinheit, ist hier ihre unmittelbar gesellschaftliche Form. Die Fronarbeit ist ebensogut durch die Zeit gemessen wie die Waren produzierende Arbeit, aber jeder Leibeigene weiß, daß es ein bestimmtes Quantum seiner persönlichen Arbeitskraft ist, die er im Dienst seines Herrn verausgabt. Der dem Pfaffen zu leistende Zehnten ist klarer als der Segen des Pfaffen. Wie man daher immer die Charaktermasken beurteilen mag, worin sich die Menschen hier gegenüber treten, die gesellschaftlichen Verhältnisse der Personen in ihren Arbeiten erscheinen jedenfalls als ihre eignen persönlichen Verhältnisse und sind nicht verkleidet in gesellschaftliche Verhältnisse der Sachen, der Arbeitsprodukte.

In medieval Europe, the three determinants of value play the following roles:

- (α) Not the generality but the particularity of the labor is its immediate social form. A tithe was usually paid in kind, and society even established standards regarding work procedures and use-values.
- (β) *Corvée* measured by time. Also the word “tithe” (one-tenth) designates a given proportion of the peasant family's *labor-time* regardless of how big the output turns out to be.
- (γ) Social relations take the form of personal relationships, not of relations between things. Nevertheless, the individuals are not the authors of these relations; the relations are mere character masks (see 94:4/o) forced on them by society. King by the grace of God, peasant or artisan by birth, etc. Also in medieval Europe, society did *not* consist of individuals.

Question 403 Which social forms do the three determinations of value take in Marx's example of medieval society in 170:1? 2005fa, 2003fa, 2002fa, 1998WI, 1997sp, 1995ut.

The sentence: “Precisely because relations of personal dependence form the given foundation, there is no need for labor and its products to assume a fantastic form different from their reality” indirectly also says something about capitalism: After the dissolution of the feudal direct dependencies, exploitative relations could only reemerge as long as they were hidden under a mystified form. It will become clear also from things said later that Marx views it a necessary ingredient of capitalist exploitation that it be *hidden*.

Question 405 Explain the following statement by Marx 170:1 about medieval society: “The natural form of labor, its particularity—and not, as in a society based on commodity

production, its universality—is here its immediate social form. 2010fa, 2009fa, 2008SP, 2007fa, 2003fa, 2002fa, 1997sp, 1997WI.

88:2/o For an example of labor in common, i.e., directly associated labor, there is no need to go back to the spontaneously developed form which we find at the threshold of the history of all civilized peoples.³⁰ We have one nearer to hand in the patriarchal rural industry of a peasant family which produces corn, cattle, yarn, linen and clothing for its own use. These things confront the family as so many products of its collective labor, but they do not confront each other as commodities. The different kinds of labor which create these products—such as tilling the fields, tending the cattle, spinning, weaving and making clothes—are already in their natural form social functions; for they are functions of the family, which, just as much as a society based on commodity production, possesses its own spontaneously developed division of labor. The distribution of labor within the family and the labor-time expended by the individual members of the family are regulated by differences of gender and age as well as by seasonal variations in the natural conditions of labor.

⇓ These labors therefore do not have to be reduced to abstract labor in order to be integrated into the social context:

The time-measured expenditure of the individual labor-powers takes here from the outset the form of an social attribute of these labors themselves, since the individual labor-powers act, from the outset, only as organs of the family's joint labor-power.

92:1 Für die Betrachtung gemeinsamer, d.h. unmittelbar vergesellschafteter Arbeit brauchen wir nicht zurückzugehen zu der naturwüchsigen Form derselben, welche uns an der Geschichtsschwelle aller Kulturvölker begegnet.³⁰ Ein näher liegendes Beispiel bildet die ländlich patriarchalische Industrie einer Bauernfamilie, die für den eignen Bedarf Korn, Vieh, Garn, Leinwand, Kleidungsstücke usw. produziert. Diese verschiedenen Dinge treten der Familie als verschiedene Produkte ihrer Familienarbeit gegenüber, aber nicht sich selbst wechselseitig als Waren. Die verschiedenen Arbeiten, welche diese Produkte erzeugen, Ackerbau, Viehzucht, Spinnen, Weben, Schneiderei usw. sind in ihrer Naturalform gesellschaftliche Funktionen, weil Funktionen der Familie, die ihre eigne, naturwüchsige Teilung der Arbeit besitzt so gut wie die Warenproduktion. Geschlechts- und Altersunterschiede wie die mit dem Wechsel der Jahreszeit wechselnden Naturbedingungen der Arbeit regeln ihre Verteilung unter die Familie und die Arbeitszeit der einzelnen Familienglieder.

Die durch die Zeitdauer gemeßne Verausgabung der individuellen Arbeitskräfte erscheint hier aber von Haus aus als gesellschaftliche Bestimmung der Arbeiten selbst, weil die individuellen Arbeitskräfte von Haus aus nur als Organe der gemeinsamen Arbeitskraft der Familie wirken.

⇑ Marx speaks here about expenditure of labor-power in the context of a patriarchal peasant family. Does this mean this labor counts as abstract labor? No. The rules in this mini-society of a family are: certain jobs have to be done; chicken have to be fed, the fields have to be tilled. Feeding the chickens is children's labor, cooking is women's labor, and tilling is men's labor.

Primitive societies, but also rural patriarchal industry serve as examples of joint labor:

- (α) The physiological truth that all labors are *equal* has no social significance. The question who does what is determined exactly by the *differences* of age and gender. This division of labor is "spontaneously developed" (*naturwüchsig*), i.e., it is based on tradition instead of the free decision and consent of the participants.

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- (β) Labor-time is assigned along with the tasks in (α); the work load varies seasonally (i.e., in certain months they have to work a lot, and in others they may have lots of free time).
- (γ) All work is performed in direct coordination, workers are “organs” of the whole family. No special social forms are needed except perhaps traditional ways of doing things and of division of labor.

The different determinations are not separated here. Mental abstraction is necessary to extract them from the direct co-operation of the family members.

Question 406 Which social forms do the three determinations of value take in Marx's example of a self-sufficient peasant family in 171:1? [2013fa](#), [2012fa](#), [2007SP](#).

Question 407 In 171:1, Marx says about the patriarchal self-sufficient peasant household: “The time-measured expenditure of the individual labor-powers takes here from the outset the form of a social attribute of these labors themselves ...” Does this mean that in this household labor is social labor as abstract labor, as argued in [[Kur87](#)]? [2007SP](#), [2004fa](#).

Footnote 30, new in the second edition (but, like Footnote 29, a quote from the earlier *Contribution*), argues that the original state of society was indeed communal property:

³⁰ ‘A ridiculous notion has spread recently that communal property in its natural, spontaneous form is specifically Slav, indeed exclusively Russian. In fact, it is the primitive form that we can prove to have existed among Romans, Teutons and Celts, and which indeed still exists to this day in India, in a whole range of diverse patterns, albeit sometimes only as remnants. A more exact study of the Asiatic, and specifically of the Indian form of communal property would show how different forms of spontaneous, primitive communal property lead to different forms of its dissolution. Thus the different original types of Roman and Germanic private property can be deduced from the different forms of Indian communal property’. (Karl Marx, *Zur Kritik etc.*, p. 10.)

³⁰ „Es ist ein lächerliches Vorurteil in neuester Zeit verbreitet, daß die Form des naturwüchsiges Gemeineigentums spezifisch slawische, sogar ausschließlich russische Form sei. Sie ist die Urform, die wir bei Römern, Germanen, Kelten nachweisen können, von der aber eine ganze Musterkarte mit mannigfachen Proben sich noch immer, wenn auch zum Teil ruinenweise, bei den Indiern vorfindet. Ein genaueres Studium der asiatischen, speziell der indischen Gemeineigentumsformen würde nachweisen, wie aus den verschiedenen Formen des naturwüchsiges Gemeineigentums sich verschiedene Formen seiner Auflösung ergeben. So lassen sich z.B. die verschiedenen Originaltypen von römischem und germanischem Privateigentum aus verschiedenen Formen des indischen Gemeineigentums ableiten.“ (Karl Marx, „Zur Kritik etc.“, p. 10.)

Marx's last example is a mode of production which does not yet exist, socialism:

89:1 Let us finally imagine, for a change, an association of free individuals, working with the means of production held in common, in which the labor-power of all the different individuals is consciously applied as the combined labor-power of the community.

92:2/o Stellen wir uns endlich, zur Abwechslung, einen Verein freier Menschen vor, die mit gemeinschaftlichen Produktionsmitteln arbeiten und ihre vielen individuellen Arbeitskräfte selbstbewußt als *eine* gesellschaftliche Arbeitskraft verausgaben.

“Imagining” (*vorstellen*) is a pre-scientific form of thinking. Concerning future modes of production, Marx claims that not much else is possible. This “imagination” also quietly rebuts the notion that the capitalist economy is the only imaginable one.

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My translation of the second half of the sentence leans on the Moore-Aveling translation which is free but excellent. Moore-Aveling write:

Let us now picture to ourselves, by way of change, a community of free individuals, carrying on their work with the means of production in common, in which the labor-power of all the different individuals is

consciously applied as the combined labor-power of the community.

Fowkes translates the second half as:

expending their many different forms of labour-power in full self-awareness as one single social labour force.

This is closer to the German but far less clear. Fowkes's efforts to make the text run smoothly introduce unwanted connotations

and obscure the meaning. His translation suggests that the organization is by *kind* of labor (the form of the labor-power) rather than by *individual* circumstances, and by translating "*Arbeitskraft*" the first time with "labor-power" and the second time with "labor force" the message is lost that in socialism each individual labor-power is treated as equal part of the social labor-power. Marx wrote "*selbstbewußt*" because the individuals are conscious about how they *themselves* are linked into the social connection; Fowkes's "self-awareness" does not capture this at all.

In socialism, each individual labor-power is treated as part of the social labor-power. In this respect socialism resembles commodity production, but this time the pooling of the individual labor-powers is done *consciously* rather than as the unintended byproduct of market competition.

All the characteristics of Robinson's labor are repeated here, but with the difference that they are *social* instead of *individual*. All of Robinson's products were exclusively the result of his own personal labor and they were therefore directly objects of utility for him personally. The total product of our imagined association is a *social* product. One part of this product serves as fresh means of production and remains social. But another part is consumed by the members of the association as means of subsistence. This part must therefore be *divided* amongst them. The way this division is made will vary with the particular kind of social organization of production and the corresponding level of social development attained by the producers. We shall assume, but only for the sake of a parallel with the production of commodities, that the share of each individual producer in the means of subsistence is determined by his *labor-time*. Labor-time would in that case play a double part. Its apportionment in accordance with a definite social plan maintains the correct proportion between the different functions of labor and the various needs of the associations. On the other hand, labor-time also

Alle Bestimmungen von Robinsons Arbeit wiederholen sich hier, nur *gesellschaftlich* statt *individuell*. Alle Produkte Robinsons waren sein ausschließlich persönliches Produkt und daher unmittelbar Gebrauchsgegenstände *für* ihn. Das Gesamtprodukt des Vereins ist ein *gesellschaftliches* Produkt. Ein Teil dieses Produkts dient wieder als Produktionsmittel. Er bleibt gesellschaftlich. Aber ein anderer Teil wird als Lebensmittel von den Vereinsgliedern verzehrt. Er muß daher unter sie *verteilt* werden. Die Art dieser Verteilung wird wechseln mit der besondern Art des gesellschaftlichen Produktionsorganismus selbst und der entsprechenden geschichtlichen Entwicklungshöhe der Produzenten. Nur zur Parallele mit der Warenproduktion setzen wir voraus, der Anteil jedes Produzenten an den Lebensmitteln sei bestimmt durch seine *Arbeitszeit*. Die Arbeitszeit würde also eine doppelte Rolle spielen. Ihre gesellschaftlich planmäßige Verteilung regelt die richtige Proportion der verschiedenen Arbeitsfunktionen zu den verschiedenen Bedürfnissen. Andererseits dient die Arbeitszeit zugleich als Maß des individuellen Anteils des Produzenten an der Gemeinschaftsarbeit und daher auch an dem

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serves as a measure of the contribution of each individual to the common labor, and of his share in the part of the total product destined for individual consumption. The social relations of the individual producers, both towards their labor and the products of their labor, are here transparent in their simplicity, in production as well as in distribution.

individuell verzehrbaren Teil des Gemeinschaftsprodukts. Die gesellschaftlichen Beziehungen der Menschen zu ihren Arbeiten und ihren Arbeitsprodukten bleiben hier durchsichtig einfach in der Produktion als auch in der Distribution.

All determinations of Robinson's labor are repeated, but this time socially instead of individually.

- (α) People consciously treat everyone's labor-power as one social labor-power. Instead of the market automatism, which forces the participants to equalize their labors, Marx envisages conscious decisions about who should do what, reconciling social necessities with individual skills and preferences.
- (β) Labor-time is not only a relevant factor in the production decision, but here it is also assumed to be the criterion for distribution. Thus labor-time has *two* roles. It has this same dual role in commodity production, although the mechanism is quite different.
- (γ) Social relations (association of free individuals) are transparent.

Question 408 Which social forms do the three determinations of value take in Marx's example of a socialist society in 171:2/o? [2010fa](#), [2009fa](#), [1999SP](#).

In this example of a socialist society, a transformational view as we found it in 81:4/o is not evident. It rather evokes a Rousseau-type scenario of "free," i.e., independent, individuals coming together to arrange their production. On the other hand, Marx is aware that this isolation of the individuals is not their natural state but the result of a long social process.

Religion is not only a metaphor for commodity fetishism, it is a social phenomenon which needs its own explanation. The next two paragraphs discuss the connection between the mystifications of social relations and religion. They also give important information about how Marx viewed the relationship between productive powers (technology), relations of production, and "superstructural" phenomena such as religion.

90:1–91:0 For a society of commodity producers, whose general social relation of production consists in the fact that they treat their products as *commodities*, hence as *values*, and in this objectified form bring their private labors into relation with each other as *homogeneous human labor*, *Christianity* with its religious cult of the abstract human, especially in its bourgeois development, i.e., in Protestantism, Deism, etc., is the most fitting *form of religion*.

93:1/o Für eine Gesellschaft von Warenproduzenten, deren allgemein gesellschaftliches Produktionsverhältnis darin besteht, sich zu ihren Produkten als *Waren*, also als *Werten* zu verhalten, und in dieser sachlichen Form ihre Privatarbeiten aufeinander zu beziehen als *gleiche menschliche Arbeit*, ist das *Christentum*, mit seinem Kultus des abstrakten Menschen, namentlich in seiner bürgerlichen Entwicklung, dem Protestantismus, Deismus usw., die entsprechendste *Religionsform*.

Just as the value relation abstracts from the concrete usefulness of labor and from the individual circumstances of production, so Christianity also makes an abstraction: namely,

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from some of the more “bodily” aspects of humans. Just as the labor process must rise above its local and traditional character to withstand the test of the market, so humans must strip off their bodily encumbrances to become pure souls. But this correspondence between religion and commodity relations only holds for modern religions in modern time. Religion is a very old phenomenon, and the question arises how the old religions related to the socio-economic conditions of their time. This will be discussed next.

Question 409 *In what ways can Christianity and the commodity relation be considered similar?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 1997ut, 1997WI, 1996sp, 1995ut, 1995WI.

In the ancient Asiatic, classical-antique, and other such modes of production, the transformation of the product into a commodity, and therefore individuals in the capacity of commodity producers, play a subordinate role—although this role increases in importance as these communities approach nearer and nearer to the stage of their dissolution. Trading nations, properly so called, exist only in the interstices of the ancient world, like the gods of Epicurus in the intermundia, or Jews in the pores of Polish society.

In den altasiatischen, antiken usw. Produktionsweisen spielt die Verwandlung des Produkts in Ware, und daher das Dasein des Menschen als Warenproduzenten, eine untergeordnete Rolle, die jedoch um so bedeutender wird, je mehr die Gemeinwesen in das Stadium ihres Untergangs treten. Eigentliche Handelsvölker existieren nur in den Intermundien der alten Welt, wie Epikurs Götter, oder wie Juden in den Poren der polnischen Gesellschaft.

Since the commodity relation was subordinate in the ancient modes of production, it must be ruled out as the material basis for the ancient religions. Next, Marx also rules out any other complexity or obscurity of social relations, and then gives his explanation of the religions of those times:

Those ancient social production-organisms are a lot simpler and more transparent than those of bourgeois society. But they are based either on the immaturity of humans as individuals, who have not yet torn themselves loose from the umbilical cord of their natural species-connection with other humans, or on direct relations of dominance and servitude. They are conditioned by a low stage of development of the productive powers of labor, and by correspondingly limited relations of men within the process of creating and reproducing their material life, hence also between each other and between man and nature. These real limitations are reflected in the ancient worship of nature, and in other elements of tribal religions.

Jene alten gesellschaftlichen Produktionsorganismen sind außerordentlich viel einfacher und durchsichtiger als der bürgerliche, aber sie beruhen entweder auf der Unreife des individuellen Menschen, der sich von der Nabelschnur des natürlichen Gattungszusammenhangs mit andren noch nicht losgerissen hat, oder auf unmittelbaren Herrschafts- und Knechtschaftsverhältnissen. Sie sind bedingt durch die niedrige Entwicklungsstufe der Produktivkräfte der Arbeit und entsprechend befangene Verhältnisse der Menschen innerhalb ihres materiellen Lebenserzeugungsprozesses, daher zueinander und zur Natur. Diese wirkliche Befangenheit spiegelt sich ideell wider in den alten Natur- und Volksreligionen.

Marx gives two reasons for the early religions: immaturity of the individual and direct relations of dominance and subordination. Both are conditioned by the low development

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of productivity, which allows only limited relations within the production process, therefore also in society at large (compare also footnote 89 to paragraph 374:5/o in the machinery chapter and a brief remark in in the chapter about the historical tendency). Religions which are worship of nature are evidently based in the low level of productive forces, and tribal religions in the immaturity of individuals who have not yet cut their umbilical chord to the tribe.

It seems that this “immaturity” of the individual is not considered here to be generated by the social relations. Apparently, Marx sees an independent historical development also on the level of interpersonal relations, which is conditioned by, but not reducible to, and presumably slower than, the succession of social modes of production. Relevant here is also Marx’s remark in 619:1/o that “the soil of commodity production can bring forth production on a large-scale only in capitalist form.”

Question 411 *In the sentence: “[The ancient social production-organisms] are conditioned by a low stage of development of the productive powers of labor, and by correspondingly limited relations of men within the process of creating and reproducing their material life, hence also between each other and between man and nature,” Marx describes the relationship between the following three: productive forces (i.e., technology), the relations in the production process, and social relations at large. Rephrase this relationship in your own words.* 2013fa, 2009fa, 2008SP, 2000fa.

Marx concludes his discussion of religion with a statement about the conditions under which religion can “fade away.” For this, he returns to the modern conditions, in which religion cannot be explained by the immaturity or the direct subordination of the individual, but by the mystification of the social relations:

The echo of the real world in religions of any kind can fade away only when the relations of everyday practical activity present themselves to the individuals all the time as transparently rational interactions with each other and with nature. The mystical veil will not be lifted from the countenance of the social life-process, i.e., of the process of material production, until it becomes the product of freely associated men, and stands under their conscious and planned control.

Der religiöse Widerschein der wirklichen Welt kann überhaupt nur verschwinden, sobald die Verhältnisse des praktischen Werktagslebens den Menschen tagtäglich durchsichtig vernünftige Beziehungen zueinander und zur Natur darstellen. Die Gestalt des gesellschaftlichen Lebensprozesses, d.h. des materiellen Produktionsprozesses, streift nur ihren mystischen Nebelschleier ab, sobald sie als Produkt frei vergesellschafteter Menschen unter deren bewußter planmäßiger Kontrolle steht.

Mankind’s ability to seize this social control is the result of developments which are beyond its control:

This, however, requires that society possess a material foundation, or a number of material conditions of existence, which in their turn are the natural and spontaneous product of a long and painful historical development.

Dazu ist jedoch eine materielle Grundlage der Gesellschaft erheischt oder eine Reihe materieller Existenzbedingungen, welche selbst wieder das naturwüchsige Produkt einer langen und qualvollen Entwicklungsgeschichte sind.

1.4.f. [The Fetishism of Bourgeois Political Economy]

The mystification of the commodity relation not only makes people religious, it also breeds the science of “bourgeois economics.” Subsection 1.4.d derived the necessity of such a scientific enterprise from the spontaneous theoretical needs of those participating in a fetish-like economy. The emancipatory potential, which this science has like any science, is overshadowed by its social function as an instrument in class domination. Its passivity, and the hopeless starting point with the finished surface categories emphasized in 1.4.d, are the legacies imprinted on this science by the social need that spawned it. But the ability of bourgeois economics to satisfy its social role—instead of leading to emancipatory action—depends not only on its method but also on the theories it provides. Subsection 1.4.f concentrates on the basic theoretical errors of bourgeois economics. These errors show that bourgeois economics is the institutionalization of commodity fetishism.

91:1/o Political economy has indeed, however incompletely,³¹ analyzed value and its magnitude, and has uncovered the content concealed within these forms.

↑ At Marx’s time, the mainstream of “political economy,” perhaps it would be better to call it “political economics,” was classical economics, which agreed with Marx that value was based on labor.

But it has never once asked why this content takes that form, that is to say, why labor is expressed *in value*, and why the measure of labor by its duration is expressed in the *magnitude of the value* of the product.³² These forms, which have it written on their foreheads that they belong to a social formation in which the production process has the mastery over men, and man does not yet master the production process, are considered by the political economists’ bourgeois consciousness to be self-evident and nature-imposed necessities, just as necessary as productive labor itself.

94:1/oo Die politische Ökonomie hat nun zwar, wenn auch unvollkommen,³¹ Wert und Wertgröße analysiert und den in diesen Formen versteckten Inhalt entdeckt.

Sie hat niemals auch nur die Frage gestellt, warum dieser Inhalt jene Form annimmt, warum sich also die Arbeit *im Wert* und das Maß der Arbeit durch ihre Zeitdauer in der *Wertgröße* des Arbeitsprodukts darstellt?³² Formen, denen es auf der Stirn geschrieben steht, daß sie einer Gesellschaftsformation angehören, worin der Produktionsprozeß die Menschen, der Mensch noch nicht den Produktionsprozeß bemeistert, gelten ihrem bürgerlichen Bewußtsein für ebenso selbstverständliche Naturnotwendigkeit als die produktive Arbeit selbst.

In German, the third sentence above reads: “*Formeln, denen es auf der Stirn geschrieben steht . . .*” This seems to be a typographical error in the second and later German editions. I assume it

should be “*Formen*” instead of “*Formeln*.” Apparently this error was never corrected except in the French translation. (It says “*Formen*” in the First edition and “*formes*” in the French edition.)

By the way, the enlightening phrase “why this content takes that form” was, inexplicably to me, omitted in the Moore-Aveling translation!

“Forms which have it written on their foreheads”: Marx’s first criticism of bourgeois political economy is *not* its inability to accurately decipher these forms, but its failure to ask those questions which led him to write section 1.4, compare page 179 above. Although the immanent theoretical development cries out for a scrutiny of the historical character of these forms and the conditions under which they can endure, bourgeois economists do not ask this question. This shows that they suffer under the higher forms of fetishism discussed earlier in 84:1/o.

1. The Commodity

In footnote 89 to paragraph 374:5/o at the beginning of the Machinery chapter, Marx reiterates the importance of not just deciphering the forms, but also understanding how they arose.

Besides its silence on the most crucial question it should have asked, bourgeois economics also made errors in answering those questions which it did ask. The long footnotes 31 and 32 detail the immanent shortcomings of political economy. The first footnote concentrates on the substance of value (after deferring the discussion of the quantity of value to later), and the second on the form of value.

³¹ The insufficiency of Ricardo's analysis of the magnitude of value—and his analysis is by far the best—will become apparent from the third and fourth books of this work.

By this Marx means *Capital III* and *Theories of Surplus Value*. The quantity of value will therefore not be discussed here. But its quality will:

^{31 ctd} As regards value itself, classical political economy nowhere distinguishes explicitly and with full awareness between the labor represented in the value of a product and the same labor manifest in its use-value.

³¹ Das Unzulängliche in Ricardo's Analyse der Wertgröße—und es ist die beste—wird man aus dem dritten und vierten Buch dieser Schrift ersehen.

^{31 ctd} Was aber den Wert überhaupt betrifft, so unterscheidet die klassische politische Ökonomie nirgendwo ausdrücklich und mit klarem Bewußtsein die Arbeit, die sich im Wert, von derselben Arbeit, die sich im Gebrauchswert ihres Produkts darstellt.

Question 415 Marx writes that “classical political economy nowhere makes the explicit and consciously clear distinction between the labor represented in the value of a product and the same labor manifest in its use-value.” If it is the same labor, how can one distinguish it? 2012fa, 2011fa, 2009fa, 2008fa, 2002fa, 1997WI.

⇓ Although classical economists do not make this distinction *explicitly* and with *full awareness*, the subject of their science, the economy, induces them to make this distinction *implicitly* and *without knowing it*:

^{31 ctd} Of course the classical economists do, in actual fact, make this distinction, for they treat labor sometimes from its quantitative aspect, and at other times qualitatively. It does not occur to them that a purely quantitative difference between different kinds of labor presupposes their qualitative unity or equality, and therefore their reduction to abstract human labor.

^{31 ctd} Sie macht natürlich den Unterschied tatsächlich, da sie die Arbeit das einemal quantitativ, das andermal qualitativ betrachtet. Aber es fällt ihr nicht ein, daß bloß quantitativer Unterschied der Arbeiten ihre qualitative Einheit oder Gleichheit voraussetzt, also ihre Reduktion auf abstrakt menschliche Arbeit.

These general remarks are followed by a very specific “smoking-gun” proof that Ricardo was not aware of the distinction between concrete and abstract labor.

^{31 ctd} For instance, Ricardo declares himself in agreement with Destutt de Tracy when the latter says: ‘As it is certain that our physical and moral faculties are alone our original riches, the employment of those faculties, labor of some kind, is our original treasure, and it is always from this employment that all those things are created which we call riches . . . It is certain, too, that all those things only represent the labor which has created them, and if they have a value, or even two distinct values, they can only derive them from that’ (the value) ‘of the labor from which

^{31 ctd} Ricardo z.B. erklärt sich einverstanden mit Destutt de Tracy, wenn dieser sagt: „Da es sicher ist, daß unsere körperlichen und geistigen Fähigkeiten allein unser ursprünglicher Reichtum sind, ist der Gebrauch dieser Fähigkeiten, eine gewisse Art Arbeit, unser ursprünglicher Schatz; es ist immer dieser Gebrauch, welcher alle jene Dinge schafft, die wir Reichtum nennen . . . Zudem ist es gewiß, daß alle jene Dinge nur die Arbeit darstellen, die sie geschaffen hat, und wenn sie einen Wert haben, oder sogar zwei unterschiedliche Werte, so können sie dies doch nur

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they emanate' (Ricardo, *The Principles of Political Economy*, 3rd Edn, London, 1821, p. 334).

haben aus dem“ (dem Wert) „der Arbeit, dem sie entspringen.“ (Ricardo, „The Principles of Political Economy,“ 3. ed., Lond. 1821, p. 334.)

With the two distinct values of a commodity Destutt means use-value and exchange-value. If Ricardo agrees with Destutt that both of these come from labor, instead of correcting Destutt that use-value comes from concrete and exchange-value from abstract labor, then this is incontrovertible evidence that Ricardo is *not* aware of the difference between the two aspects of labor.

Marx is conscientious enough to point out an additional wrinkle in his example, which is however less relevant for the subject under discussion: the passage quoted from Destutt also contains a blatant contradiction, and Ricardo only picks up one of the two contradictory messages—namely the correct one:

^{31 ctd} I shall content myself here with pointing out that Ricardo puts his own more profound interpretation upon the words of Destutt. The Frenchman does, in fact, say on the one hand that all things which constitute wealth 'represent the labor which has created them,' but he also says, on the other hand, that they acquire their 'two different values' (use-value and exchange-value) from 'the value of labor.' He thus lapses into the shallowness of the vulgar economist, who presupposes the value of one commodity (labor, in this case) so that he can then determine the values of the other commodities. But Ricardo reads him as if he had said that labor (not the value of labor) is represented both in use-value and in exchange-value.

^{31 ctd} Wir deuten nur an, daß Ricardo dem Destutt seinen eigenen tieferen Sinn unterschiebt. Destutt sagt in der Tat zwar einerseits, daß alle Dinge, die den Reichtum bilden, „die Arbeit repräsentieren, die sie geschaffen hat,“ aber andererseits, daß sie ihre „zwei verschiedenen Werte“ (Gebrauchswert und Tauschwert) vom „Wert der Arbeit“ erhalten. Er fällt damit in die Flachheit der Vulgärökonomie, die den Wert einer Ware (hier der Arbeit) voraussetzt, um dadurch hinterher den Wert der andren Waren zu bestimmen. Ricardo liest ihn so, daß sowohl im Gebrauchswert als Tauschwert sich Arbeit (nicht Wert der Arbeit) darstellt.

The point that value comes from labor itself, not from the value of labor, will be made in great detail in chapter Nineteen.

Question 416 *Are there any errors in the following passage by Destutt the Tracy? If so, what are they?*

2000fa, 1999SP, 1995WI.

The rest of the footnote is more to the point again. Ricardo's failure to distinguish between the two aspects of labor makes it difficult for him to rebut Say's trivialities. In Marx's view, Ricardo had the right instincts, but had difficulties arguing his point because he did not distinguish between concrete and abstract labor.

^{31 ctd} Nevertheless, Ricardo himself pays so little attention to the twofold character of labor behind its twofold expression, that his whole chapter 'Value and Riches, their Distinctive Properties' is largely devoted to laborious refutation of the trivialities of a J. B. Say.

^{31 ctd} Er selbst aber scheidet so wenig den zwieschlächtigen Charakter der Arbeit, die doppelt dargestellt ist, daß der in dem ganzen Kapitel: „Values and Riches, their Distinctive Properties“ sich mühselig mit den Trivialitäten eines J. B. Say herumschlagen muß.

Finally, footnote 31 concludes with another reference to Destutt:

^{31 ctd} And at the end he is therefore quite astonished to find that while Destutt agrees with him that labor is the source of value, Destutt nevertheless also agrees with Say about the concept of value.

^{31 ctd} Am Ende ist er daher auch ganz erstaunt, daß Destutt zwar mit ihm selbst über Arbeit als Wertquelle und dennoch andererseits mit Say über den Wertbegriff harmoniere.

1. The Commodity

All this is simultaneously subtle and condensed, and only someone with an intimate knowledge of Ricardo will be able to fully appreciate this argument.

The second footnote, number 32, clarifies an additional detail which the main text brings only implicitly. It emphasizes that political economy investigated value and the magnitude of value, but it never even discovered the form of value—because this would have led to questions it wanted to avoid.

³² It is one of the chief failings of classical political economy that it has never pursued the analysis of commodities and more specifically of commodity value to the point where it yields the form of value, i.e., that what turns value into exchange-value. Even its best representatives, Adam Smith and Ricardo, treat the form of value as something quite indifferent or extraneous to the nature of the commodity itself.

³² Es ist einer der Grundmängel der klassischen politischen Ökonomie, daß es ihr nie gelang, aus der Analyse der Ware und spezieller des Warenwerts die Form des Werts, die ihn eben zum Tauschwert macht, herauszufinden. Gerade in ihren besten Repräsentanten, wie A. Smith und Ricardo, behandelt sie die Wertform als etwas ganz Gleichgültiges oder der Natur der Ware selbst äußerliches.

It is not only important to know what value is and how its magnitude is determined, but also to relate the form which value takes on the surface of the economy, i.e., the exchange relation of commodities, to its quality and quantity. The reason why this aspect is so often ignored is twofold. On the one hand, the practical activity on the market does not throw up this question, but first and foremost requires an explanation of the magnitude of value. On the other hand, even the best representatives of bourgeois political economy consider the capitalist form of production as the eternally given one. This causes them to overlook the specificity of the value form.

^{32 ctd} The reason for this is not solely that their attention is entirely absorbed by the analysis of the magnitude of value. It lies deeper. The value form of the product of labor is the most abstract, but also the most general form of the bourgeois mode of production. It characterizes this mode of production as a particular species of social production, and therewith as one of a historical and transitory character. If one considers it to be the eternal natural form of social production, one necessarily overlooks the specificity of the value form as well—and consequently that of the commodity form, together with its further developments, the money form, the capital form, etc.

^{32 ctd} Der Grund ist nicht allein, daß die Analyse der Wertgröße ihre Aufmerksamkeit ganz absorbiert. Er liegt tiefer. Die Wertform des Arbeitsprodukts ist die abstrakteste, aber auch allgemeinste Form der bürgerlichen Produktionsweise, die hierdurch als eine besondere Art gesellschaftlicher Produktion und damit zugleich historisch charakterisiert wird. Versieht man sie daher für die ewige Naturform gesellschaftlicher Produktion, so übersieht man notwendig auch das Spezifische der Wertform, also der Warenform, weiter entwickelt in der Geldform, Kapitalform usw.

Again, this general claim is backed by specific examples. Marx brings two arguments why economists who understand that value comes from labor nevertheless do not understand money: (1) the theories they come up with contradict each other, and (2) these errors become especially apparent when they theorize the higher forms of money, such as the banking system. The fear to unmask the capitalist system interferes more with the explanation of the more developed forms than that of the most basic and abstract ones:

^{32 ctd} That is why certain economists who are entirely agreed that labor-time is the measure of the magnitude of value, have the strangest and most contradictory notions concerning money, the universal equivalent in its finished form. This emerges sharply when they deal with banking,

^{32 ctd} Man findet daher bei Ökonomen, welche über das Maß der Wertgröße durch Arbeitszeit durchaus übereinstimmen, die kunterbuntesten und widersprechendsten Vorstellungen von Geld, d.h. der fertigen Gestalt des allgemeinen Äquivalents. Dies tritt schlagend hervor z.B. bei

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where the commonplace definitions of money will no longer do. Hence there has arisen in opposition to the classical economists a restored Mercantilist System (Ganilh etc.), which sees in value only the social form, or rather the insubstantial ghost of that form.—

der Behandlung des Bankwesens, wo mit den gemeinplätzlichen Definitionen des Geldes nicht mehr ausgereicht wird. Im Gegensatz entsprang daher ein restauriertes Merkantilssystem (Ganilh usw.), welches im Wert nur die gesellschaftliche Form sieht oder vielmehr nur ihren substanzlosen Schein.—

↑ The error Marx is alluding to here is that of considering money to be only a social agreement and forget its substance. Marx will say more about this in chapter Two, 100:4/oo.

Question 417 *How are the errors which bourgeois economics makes in those questions which it tries to answer related to the question which it did not want to ask?* 2012fa, 2008fa.

Question 418 *What did and what didn't the classical economists find out?* 2013fa, 2008fa, 2005fa, 2004fa, 2003fa, 1997WI.

A detailed sociology-of-science explanation of the role of political economy is given in the afterword to the second edition, see e.g. . Here only the following remark:

^{32 ctd} Let me point out once and for all that by classical political economy I mean all the economists who, since the time of W. Petty, have investigated the real inner structure of bourgeois relations of production, as opposed to the vulgar economists who only flounder around within the apparent structure of those relations, ceaselessly ruminate on the materials long since provided by scientific political economy, in order to lend plausibility to the crudest phenomena for bourgeois daily food. Apart from this, the vulgar economists confine themselves to systematizing in a pedantic way, and proclaiming for everlasting truths, the banal and complacent notions held by the bourgeois agents of production about their own world, which is to them the best possible one.

^{32 ctd} Um es ein für allemal zu bemerken, verstehe ich unter klassischer politischer Ökonomie alle Ökonomie seit W. Petty, die den innern Zusammenhang der bürgerlichen Produktionsverhältnisse erforscht im Gegensatz zur Vulgärökonomie, die sich nur innerhalb des scheinbaren Zusammenhangs herumtreibt, für eine plausible Verständlichmachung der sozusagen größten Phänomene und den bürgerlichen Hausbedarf das von der wissenschaftlichen Ökonomie längst gelieferte Material stets von neuem wiederkauft, im übrigen aber sich darauf beschränkt, die banalen und selbstgefälligen Vorstellungen der bürgerlichen Produktionsagenten von ihrer eignen besten Welt zu systematisieren, pedantisieren und als ewige Wahrheiten zu proklamieren.

Question 419 *What is Marx's difference between bourgeois economists and vulgar economists?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa.

Let us now return from the footnotes to the main text, which was not so much concerned with the factual theoretical errors of political economy but with its uncritical avoidance of certain questions. Since mainstream political economy accepts the historically specific forms as nature-given necessities, it has no better way out, when confronted with historically different economic formations, than a religion that is confronted with other religions:

Hence the pre-bourgeois forms of the social organization of production are treated by political economy in much the same way as pre-Christian religions were treated by the Fathers of the Church.³³

Vorbürgerliche Formen des gesellschaftlichen Produktionsorganismus werden daher von ihr behandelt wie etwa von den Kirchenvätern vorchristliche Religionen.³³

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With this, Marx dives into another long footnote. It elaborates on the inadequate treatment of pre-bourgeois modes of production by political economy, stemming from their failure to recognize the historical specificity of their own mode of production, and then says something about modes of production in general. It starts with a quote from *Misery of Philosophy*:

³³ “The economists have a singular way of proceeding. For them, there are only two kinds of institutions, artificial and natural. The institutions of feudalism are artificial institutions, those of the bourgeoisie are natural institutions. In this they resemble the theologians, who likewise establish two kinds of religion. Every religion which is not theirs is an invention of men, while their own is an emanation of God . . . Thus there has been history, but there is no longer any.” (Karl Marx, *Misère de la philosophie. Réponse à la philosophie de la misère de M. Proudhon*, 1847, p. 113).

³³ „Die Ökonomen verfahren auf eine sonderbare Art. Es gibt für sie nur zwei Arten von Institutionen, künstliche und natürliche. Die Institutionen des Feudalismus sind künstliche Institutionen, die der Bourgeoisie natürliche. Sie gleichen darin den Theologen, die auch zwei Arten von Religionen unterscheiden. Jede Religion, die nicht die ihre ist, ist eine Erfindung der Menschen, während ihre eigene Religion eine Offenbarung Gottes ist.—Somit hat es eine Geschichte gegeben, aber es gibt keine mehr.“ (Karl Marx, *Misère de la philosophie. Réponse à la philosophie de la misère de M. Proudhon*, 1847, p. 113.)

The example of a blatant mis-representation of earlier economies by a bourgeois economist illustrates this general statement:

^{33 ctd} Truly comical is M. Bastiat, who imagines that the ancient Greeks and Romans lived by plunder alone. For if people live by plunder for centuries there must, after all, always be something there to plunder; in other words, the objects of plunder must be continually reproduced. It seems, therefore, that even the Greeks and the Romans had a process of production, hence an economy, which constituted the material basis of their world as much as the bourgeois economy constitutes that of the present-day world. Or perhaps Bastiat means that a mode of production based on the labor of slaves is based on a system of plunder? In that case he is on dangerous ground. If a giant thinker like Aristotle could err in his assessment of slave labor, why should a dwarf economist like Bastiat be right in his assessment of wage labor?

^{33 ctd} Wahrhaft drollig ist Herr Bastiat, der sich einbildet, die alten Griechen und Römer hätten nur von Raub gelebt. Wenn man aber viele Jahrhunderte durch von Raub lebt, muß doch beständig etwas zu rauben da sein oder der Gegenstand des Raubes sich fortwährend reproduzieren. Es scheint daher, daß auch Griechen und Römer einen Produktionsprozeß hatten, also eine Ökonomie, welche ganz so die materielle Grundlage ihrer Welt bildete wie die bürgerliche Ökonomie die der heutigen Welt. Oder meint Bastiat etwa, daß eine Produktionsweise, die auf der Sklavenarbeit beruht, auf einem Raubsystem ruht? Er stellt sich dann auf gefährlichen Boden. Wenn ein Denkriese wie Aristoteles in seiner Würdigung der Sklavenarbeit irrte, warum sollte ein Zwergökonom, wie Bastiat, in seiner Würdigung der Lohnarbeit richtig gehen?

If Bastiat means by plunder the plundering of the defeated provinces, then the argument is that the things plundered must also be produced. If Bastiat means that slave labor is plunder, then one has to wonder whether wage labor should be called plunder too.

Footnote 33 concludes with a highly interesting additional remark, in which Marx refers back to his famous passage in the preface to the *Contribution to the Critique of Political Economy*. The importance of this remark was pointed out by Balibar in [AB70, p. 217].

^{33 ctd} I seize this opportunity of briefly refuting an objection made by a German-American publication to my work *A Contribution to the Critique of Political Economy*, 1859. My view is that each particular mode of production, and the relations of production corresponding to it at every given moment, in short ‘the economic structure of society’, is ‘the real foundation, on which

^{33 ctd} Ich ergreife diese Gelegenheit, um einen Einwand, der mir beim Erscheinen meiner Schrift “Zur Kritik der Pol. Oekonomie”, 1859, von einem deutsch-amerikanischen Blatte gemacht wurde, kurz abzuweisen. Es sagte, meine Ansicht, daß die bestimmte Produktionsweise und die ihr jedesmal entsprechenden Produktionsverhältnisse, kurz “die ökonomische Struktur der

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arises a legal and political superstructure and to which correspond definite forms of social consciousness', and that 'the mode in which material life is produced conditions the general process of social, political and intellectual life'. In the opinion of the German-American publication this is all very true for our own times, in which material interests are preponderant, but not for the Middle Ages, dominated by Catholicism, nor for Athens and Rome, dominated by politics.

Gesellschaft die reale Basis sei, worauf sich ein juristischer und politische Überbau erhebe und welcher bestimmte gesellschaftliche Bewußtseinsformen entsprächen", daß "die Produktionsweise des materiellen Lebens den sozialen, politischen und geistigen Lebensprozeß überhaupt bedinge",—alles dies sei zwar richtig für die heutige Welt, wo die materiellen Interessen, aber weder für das Mittelalter, wo der Katholizismus, noch für Athen und Rom, wo die Politik herrschte.

Before responding to the argument, Marx indicates that this is not a new interpretation of Middle Ages and the ancient world. By implication: if there is something to it, he, Marx, would have considered it. And indeed, Marx shows again and again, especially in his *Theories of Surplus-Value*, that he is very familiar with the literature. Although he is very critical of the writings of his contemporaries, it is second nature to him to consider it carefully—not only because of the insights it may contain but also because they are "socially valid . . . forms of thought" (87:1) generated by the capitalist relations of production.

^{33 ctd} In the first place, it strikes us as odd that anyone should suppose that these well-worn phrases about the Middle Ages and the ancient world were unknown to anyone else.

^{33 ctd} Zunächst ist es befremdlich, daß jemand voraussetzen beliebt, diese weltbekannten Redensarten über Mittelalter und antike Welt seien irgend jemand unbekannt geblieben.

In his substantive response, Marx reaffirms an explanation which seems to say that production is the ultimate determinant because nothing can happen in a society before people are clothed and fed.

^{33 ctd} One thing is clear: the Middle Ages could not live on Catholicism, nor could the ancient world on politics. On the contrary, it is the manner in which they gained their livelihood which explains why in one case politics, in the other case Catholicism, played the main role. Regarding the Roman Republic, for instance, one needs no more than a slight acquaintance with its history to be aware that its secret history is the history of landed property. On the other hand, already Don Quixote had to pay for the mistake of believing that knight errantry was equally compatible with all economic forms of society.

^{33 ctd} Soviel ist klar, daß das Mittelalter nicht vom Katholizismus und die antike Welt nicht von der Politik leben konnte. Die Art und Weise, wie sie ihr Leben gewannen, erklärt umgekehrt, warum dort die Politik, hier der Katholizismus die Hauptrolle spielt. Es gehört übrigens wenig Bekanntschaft z.B. mit der Geschichte der römischen Republik dazu, um zu wissen, daß die Geschichte des Grundeigentums ihre Geheimgeschichte bildet. Andererseits hat schon Don Quixote den Irrtum gebüßt, daß er die fahrende Ritterschaft mit allen ökonomischen Formen der Gesellschaft gleich verträglich wählte.

This argument for the centrality of the mode of production seems at first sight (a) quite unrelated to the topic under discussion, and (b) false, a non sequitur. (a) One might wonder what it has to do with commodity fetishism, and (b) it has also been often remarked that the fact that the economy provides the basic necessities for the survival of society does not necessarily imply that the economic sphere *directs* society.

In order to answer these two objections, one has to see them in their relationship. If one understands why this topic is discussed here, in the commodity fetishism section, one also understands how economics is so dominant. The missing link is people's lack of consciousness. Balibar [AB70, p. 216] noticed some of this when he pointed out that the preponderance of the economic sphere was most direct when fetishism was most thorough.

Now back to the main text:

1. The Commodity

93:1 How utterly some economists are deceived by the fetishism attached to the world of commodities, or by the *objective* appearance of the *social* characteristics of labor, is shown, among other things, by the dull and tedious dispute over the *part played by nature* in the formation of exchange-value. Since exchange-value is a specific social manner of expressing the labor bestowed on a thing, it can have no more natural content than do, for example, international *currency exchange rates*.

This may seem a silly dispute, since it seems so simple to look through the fetish-like character of the *commodity*. Things look different as soon as more developed forms are considered.

93:2 As the *commodity-form* is the most general and the least developed form of bourgeois production, it makes its appearance at an early date, though not in the same predominant and therefore characteristic manner as nowadays. Hence its fetish character seems still relatively easy to penetrate. But when we come to more concrete forms, not even the appearance of simplicity remains. Where did the illusions of the Monetary System come from? The adherents of the Monetary System did not see that gold and silver, as money, represent a social relation of production, albeit in the form of natural objects with peculiar social properties. And what of modern political economy, which looks down so disdainfully on the Monetary System? Does not its fetishism become quite palpable as soon as it deals with *capital*? How long is it since the disappearance of the Physiocratic illusion that ground rent grows out of the soil not out of society?

97:1 Wie sehr ein Teil der Ökonomen von dem der Warenwelt anklebenden Fetischismus oder dem *gegenständlichen* Schein der *gesellschaftlichen* Arbeitsbestimmungen getäuscht wird, beweist u.a. der langweilig abgeschmackte Zank über die *Rolle der Natur* in der Bildung des Tauschwertes. Da Tauschwert eine bestimmte gesellschaftliche Manier ist, die auf ein Ding verwandte Arbeit auszudrücken, kann er nicht mehr Naturstoff enthalten wie etwa der *Wechselkurs*.

97:2 Da die *Warenform* die allgemeinste und unentwickeltste Form der bürgerlichen Produktion ist, weswegen sie früh auftritt, obgleich nicht in derselben herrschenden, also charakteristischen Weise wie heutzutage, scheint ihr Fetischcharakter noch relativ leicht zu durchschauen. Bei konkreteren Formen verschwindet selbst dieser Schein der Einfachheit. Woher die Illusionen des Monetarsystems? Es sah dem Gold und Silber nicht an, daß sie als Geld ein gesellschaftliches Produktionsverhältnis darstellen, aber in der Form von Naturdingen mit sonderbar gesellschaftlichen Eigenschaften. Und die moderne Ökonomie, die vornehm auf das Monetarsystem herabgrinst, wird ihr Fetischismus nicht handgreiflich, sobald sie das *Kapital* behandelt? Seit wie lange ist die physiokratische Illusion verschwunden, daß die Grundrente aus der Erde wächst, nicht aus der Gesellschaft?

Both the Moore-Aveling and the Ben Fowkes translations say it “is” still relatively easy to see through, instead of “seems.” However the first edition and also Contribution,

275:1/o, both say: it *is* relatively easy (although right afterwards *Contribution* says: “*verschwindet dieser Schein der Einfachheit*.” And Marx did make the change

from “is” to “seems” during the revisions of this chapter for the second edition, emphasizing that the mystification is not really simple; is only seems so.

When Marx says that the fetish-like character of the commodity *seems* relatively easy to penetrate, the implication is that it *is* not really easy. The error which one is likely to commit here is discussed in chapter Two, 100:4/oo, and also footnotes 27 and 32 here: it is

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equally wrong to consider commodities merely as social symbols without appreciating the importance of the objectified form of social relations.

In *Contribution 275:1/o*, Marx gives the following poignant formulation:

All the illusions of the monetary system arise from the failure to perceive that money, although a physical object with distinct properties, represents a social relation of production. As soon as the modern economists, who sneer at the illusions of the monetary system, deal with the more complex economic categories, such as capital, they display the same illusions. This emerges clearly in their confession of naive astonishment when the phenomenon that they have just ponderously described as a thing reappears as a social relation and, a moment later, having been defined as a social relation, teases them once more as a thing.

Marx ends the chapter with some comical remarks:

93:3/o But, to avoid anticipating, we will content ourselves here with one more example concerning the commodity-form itself. If commodities could speak, they would say this: our use-value may interest humans, but it does not belong to us as objects. What does belong to us *as objects*, however, is our value. Our own interactions as commodity objects prove it. We relate to each other only as exchange-values.

97:3 Um jedoch nicht vorzugreifen, genüge hier noch ein Beispiel bezüglich der Warenform selbst. Könnten die Waren sprechen, so würden sie sagen, unser Gebrauchswert mag den Menschen interessieren. Er kommt uns nicht als Dingen zu. Was uns aber *dinglich* zukommt, ist unser Wert. Unser eigener Verkehr als Warendinge beweist das. Wir beziehn uns nur als Tauschwerte aufeinander.

Question 421 *How does Marx know what commodities would say if they could speak?*
Answer, 2013fa, 2011fa, 2010fa, 2009fa, 2007SP, 2005fa, 2004fa, 2003fa.

The speaking commodities exemplify a symmetric counterpart of commodity fetishism. While people act as if they were thinking that the social properties of commodities come from nature, commodities relate to each other as if they were thinking that the natural properties of commodities come from the humans. The following quotes show that this nonsense is echoed by published economists:

Now listen how the economist makes himself the mouthpiece of the commodities:

94:1 ‘Value (i.e. exchange-value) is a *property of things*, riches (i.e. use-value) of man. Value, in this sense, necessarily implies exchanges, riches do not.’³⁴

³⁴ (*Observations on Some Verbal Disputes in Pol. Econ., particularly relating to value, and to supply and demand*, Lond. 1821, p. 16.)

Man höre nun, wie der Ökonom aus der Warenseele heraus spricht:

“Wert” (Tauschwert) “ist *Eigenschaft der Dinge*, Reichtum” (Gebrauchswert) “des Menschen. Wert in diesem Sinn schließt notwendig Austausch ein, Reichtum nicht.”³⁴

³⁴ „Value is a property of things, riches of man. Value, in this sense, necessarily implies exchanges, riches do not.“ („*Observations on Some Verbal Disputes in Pol. Econ., particularly relating to value, and to supply and demand*“, Lond. 1821, p. 16.)

Marx brings a second quote, which is almost identical although it comes from a different source: These sources are, according to footnotes 34 and 35, [Ano21, p. 16] and [Bai25, p. 165 seq.].

1. The Commodity

94:2 'Riches (use-value) are the attribute of man, value is the attribute of commodities. A man or a community is rich, a pearl or a diamond is *valuable* ... A pearl or a diamond has value as pearl or diamond.'³⁵

„Reichtum“ (Gebrauchswert) „ist ein Attribut des Menschen, Wert ein Attribut der Waren. Ein Mensch oder ein Gemeinwesen ist *reich*; eine Perle oder Diamant ist *wertvoll* ... Eine Perle oder Diamant hat Wert als Perle oder Diamant.“³⁵

³⁵ S. Bailey, l.c., p. 165 sq.

³⁵ „Riches are the attribute of man, value is the attribute of commodities. A man or a community is rich, a pearl or a diamond is valuable ... A pearl or a diamond is valuable as a pearl or diamond.“ (S. Bailey, l.c., p. 165 sq.)

The first of these two quotes is discussed by Marx at some length in *Theories of Surplus-Value* [mecw32]316:7:

RICHES in this context are use-values. It is true, use-values are wealth only in relation to humans. But it is by its *own* PROPERTY that something is a use-value and therefore an element of wealth for humans. Take away from the grape the properties which make it a grape, and the use-value which it has as a grape for humans disappears; and it ceases to be, as a grape, an element of wealth. Riches as identically with use-value are *properties of things* THAT ARE MADE USE OF BY MEN AND WHICH EXPRESS A RELATION TO THEIR WANTS. As against this, “value” is supposed to be the “PROPERTY OF THINGS”!

In *Capital*, Marx expresses similar thoughts as follows:

94:3 So far no chemist has ever discovered exchange-value in pearl or diamond. The economists who claim to have discovered this chemical substance with their special critical acumen, come to the conclusion that the use-value of material objects belongs to these objects independently of their material properties, while their value, on the other hand, forms a part of them as objects. What confirms them in this view is the curious fact that the use-value of a thing is realized for the humans *without exchange*, i.e., in the direct relation between thing and person, while, inversely, its value is realized only in exchange, i.e., in a *social* process.

98:1–2 Bisher hat noch kein Chemiker Tauschwert in Perle oder Diamant entdeckt. Die ökonomischen Entdecker dieser chemischen Substanz, die besondern Anspruch auf kritische Tiefe machen, finden aber, daß der Gebrauchswert der Sachen unabhängig von ihren sachlichen Eigenschaften, dagegen ihr Wert ihnen als Sachen zukommt. Was sie hierin bestätigt, ist der sonderbare Umstand, daß der Gebrauchswert der Dinge sich für den Menschen *ohne Austausch* realisiert, also im unmittelbaren Verhältnis zwischen Ding und Mensch, ihr Wert umgekehrt nur im *Austausch*, d.h. in einem *gesellschaftlichen* Prozeß.

“ökonomischen Entdecker dieser chemischen Substanz” (literally: economic discoverer of this

chemical substance) refers again to the incongruity between economic form and physical content. The

translation misses that! In the first edition it was simply “our authors” (unsere Verfasser).

The bourgeois economists thought they were “confirmed” in their absurd views by the following arguments

1. Use-value is realized in the relation between object and man, therefore the economists think it comes from man, not the object. This is also how the speaking commodities themselves in 93:3/o conclude that their use-values cannot be attributed to them as objects.

1.4. Fetish-Like Character and its Secret

2. Value is realized only in the exchange. Exchange is seen as a relation between things, therefore value seems to belong to the things. Again this is exactly what the speaking commodities themselves said.

By his appositions “without exchange” to 1. and “i.e., in a *social* process” to 2., Marx shows the absurdity of this reasoning.

This inversion of the natural and social is reminiscent of the following passage from Shakespeare’s *Much Ado About Nothing*:

Who would not be reminded at this point of the advice given by the good Dogberry to the night-watchman Seacoal?

‘To be a well-favored man is the gift of fortune; but reading and writing comes by nature.’³⁶

Wer erinnert sich hier nicht des guten Dogberry, der den Nachtwächter Seacoal belehrt:

“Ein gut aussehender Mann zu sein ist eine Gabe der *Umstände*, aber lesen und schreiben zu können kommt *von Natur*.”³⁶

A “well-favored man” is here a good-looking man, unambiguously in Marx’s German translation.

Question 422 *How is it a manifestation of fetishism to call people “rich” or “poor,” and to call things “expensive” or “inexpensive”?* [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2008fa](#), [2005fa](#), [2002fa](#), [1997WI](#).

⇓ Footnote 36 takes up once more the theme of footnote 32 to paragraph 91:1/o.

³⁶ Both the author of *Observations etc.* and S. Bailey accuse Ricardo of converting exchange-value from something merely relative into something absolute. He did exactly the reverse. He reduced the seeming relativity, which these things (diamond, pearls, etc.) possess as exchange-values to the true relation hidden behind this semblance, namely their relativity as mere expressions of human labor. If the followers of Ricardo answer Bailey rudely, but not convincingly, this is because they are unable to find in Ricardo’s own works any elucidation of the inner connection between value and the form of value (exchange-value).

³⁶ Der Verfasser der „Observations“ und S. Bailey beschuldigen Ricardo, er habe den Tauschwert aus einem nur Relativen in etwas Absolutes verwandelt. Umgekehrt. Er hat die Scheinrelativität, die diese Dinge, Diamant und Perlen z.B., als Tauschwerte besitzen, auf das hinter dem Schein verborgene wahre Verhältnis reduziert, auf ihre Relativität als bloße Ausdrücke menschlicher Arbeit. Wenn die Ricardianer dem Bailey grob, aber nicht schlagend antworten, so nur, weil sie bei Ricardo selbst keinen Aufschluß über den inneren Zusammenhang zwischen Wert und Wertform oder Tauschwert fanden.

Question 423 *Why does Marx say in footnote 38 to paragraph 177:3–4 that the commodities diamond, pearl, etc., only seem to possess relativity as exchange-values? Are exchange-values not relative by definition?* [2013fa](#), [2008SP](#), [2007fa](#), [2007SP](#).

2. The Exchange Process

Chapter One showed that the main organizing principle of production, under capitalism, is the equality of all labor. Society treats its labor-power as a homogeneous mass with only quantitative differences. This equality allows producers to respond to market demand by shifting labor between the different branches of production. In other words, the coordination of the individual production processes takes place outside the production process itself (namely, in the market). Section 1.3 pursued the process through which the inner measure of all commodities, abstract labor, finds a fitting representation on the “surface,” i.e. in the market. This surface mirror of abstract labor is money. Chapter Two looks at the *individual* actions and relations in the market. It explores how individuals depend on the surface relations through which production is coordinated, and use them. This is important to know. The surface representations of the deep structure of capitalist production discussed in section 3 of chapter One will only be implemented if they are useful for the commodity owners. A byproduct of this implementation and use is the reproduction of the underlying “deep” structural relations of production themselves.

The relation between society and individual can be compared with that between two animals in symbiosis. Society does not determine what the individuals do, nor does it *guarantee* the individuals their survival. Rather, individuals must use the social relations and institutions in order to pursue their own goals. The social structures come to life because the need to survive forces people to accept the “character masks” provided for them by the social relations. By slipping into these character masks they allow these social relations to take hold. On the other hand, this social framework can only persist if it enables individuals to survive and reproduce, otherwise individuals would have no choice but to act outside the social framework.

Question 426 *Should the relationship between individual and society be compared to the relationship between an individual bird and a flock of birds, or to the relationship between the bumble bee and the flowering plant? Give Pros and Cons for each alternative. 2013fa, 2012fa.*

As just described, chapter Two shows that individuals are motivated to use the social framework developed in chapter One. Commodity owners can best achieve their goals in the commodity exchange if they implement in practice those social forms, derived in section 1.3 of chapter One, by which commodities express their values. The technical difficulties of the exchange are resolved by social forms which Marx derived not as instruments to facilitate the exchange, but as the forms in which value appropriately expresses itself.

It is not surprising that the forms which are most appropriate expressions of the inner structure of the commodity also facilitate the surface interactions between commodity owners. But it is also not a tautology, and the fit between structural expression and practical usefulness is not perfect. Chapters Four, Five, and Six will show that money not only facilitates exchange, but that money fosters behaviors that go beyond the economic necessities of simple commodity production. (In these Annotations here this will be called the “curse” of money).

2.1. [Prerequisites of Commodity Production]

Marx did not subdivide chapter Two, but for the purpose of this commentary it is divided into four sections.

The first section, *Social Prerequisites of Commodity Production*, consists of one paragraph only, 94:4/o. It gives a brief overview of the social relations that are *necessary* for production to take the form of commodity production. People must recognize each other as private owners, i.e., treat each other as disconnected strangers.

In the second section, *Dilemmas Inherent in the Commodity Exchange* 95:1–97:1, Marx asks the opposite question: how do commodity relations enter individual actions and interactions? Marx describes the dilemmas which a commodity owner encounters who is trying to make exchanges in such a way that his or her personal interests are met.

Marx argues that on an *individual* level, these dilemmas are so serious that they block action; but the *social* act of separating money from the ordinary commodities creates the framework for an accommodation which, although it does not *resolve* the underlying contradiction, gives it a form in which it is possible to act despite the contradiction.

The next section, *Historical Development of the Commodity Form* 97:2–100:3, shows how the separation between the money commodity and the ordinary commodities happened in history.

The final section, *Ideologies of Money and its Fetish-Like Character* 100:4–103:1, discusses the false consciousness generated by the practical market interactions: money as a symbol, the quantitative expression of the value of the money commodity, and the magic of money.

2.1. [Social Prerequisites of Commodity Production]

94:4/o Commodities cannot go to market by themselves in order to exchange themselves.

99:1/o Die Waren können nicht selbst zu Märkte gehen und sich nicht selbst austauschen.

In chapter One, the commodity was depicted as something active. Chapter Two begins with the sobering observation that commodities, by themselves, cannot even walk to the market. We must therefore look what their keepers are doing, the commodity owners.

Wir müssen uns also nach ihren Hütern umsehen, den Warenbesitzern.

Although chapter Two is a discussion of volitional individual agency, this formulation shows that center stage is still occupied by the commodity, not its owner. The exchange process is introduced as something which the *commodities* need to do, not their owners. The word “keeper” or “guardian” (*Hüter*) indicates that the main agent is not the owner but the commodity. The owners of the commodities get our attention only because nothing in society happens unless some individual carries it out—but this does not mean that the individual is in charge. In our mental image we should not visualize owners carrying their commodities to the market, but commodities dragging their owners along with them to the market—like a dog who drags his master who is trying to keep him on the leash.

The keeper of the commodity is its private owner, i.e., Marx introduces here the concept of private property. The first thing to know about private property is that it is not a relation between thing and person but a *social* relation—because something is yours only if others in society respect your property. Just as value is a social relation that looks like an attribute of things, so is private property a social relation that looks like a bond between people and things.

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Commodities are things, and can therefore not put up resistance against man. If they do not comply with his will, he can use force—in other words, he can take them.³⁷

Die Waren sind Dinge und daher widerstandslos gegen den Menschen. Wenn sie nicht willig, kann er Gewalt brauchen, in andren Worten, sie nehmen.³⁷

“Take possession” is a too formal translation of the German word

“*nehmen*,” which denotes a simple practical act disregarding social rules.

↑ Marx not only says that private property is a social relation, but he puts his own spin on this: he describes the commodity as having its own will. The commodity belongs to *P* and therefore only wants to be used by *P*. It would like to see its will respected by the humans—but the commodity itself has no recourse if non-owner *Q* ignores the social relations crystallized in the commodity and treats it as a thing which he can simply *take* (see *Grundrisse*, 31:2/o).

Footnote 37 brings a juicy illustration in which commodities literally have their own wills—they are human beings—and where the “taking” consists in sexual and other violations:

³⁷ In the twelfth century, so renowned for its piety, very delicate things often appear among these commodities. Thus a French poet of the period enumerates among the commodities to be found in the fair of Lendit, alongside clothing, shoes, leather, implements of cultivation, skins, etc., also ‘women crazy of their bodies’.

³⁷ Im 12., durch seine Frömmigkeit so berufenen Jahrhundert, kommen unter diesen Waren oft sehr zarte Dinge vor. So zählt ein französischer Dichter jener Zeit unter den Waren, die sich auf dem Markt von Landit einfanden, neben Kleidungsstoffen, Schuhen, Leder, Ackergeräten, Häuten usw. auch „femmes folles de leur corps“ auf.

The medieval French poet is Guillot de Paris. Lendit is a town near Paris where a great fair had been held annually from the 12. to the 19. centuries. The quote is taken from the satirical poem “Dit du Lendit.”

Commodities, as things, are just as powerless as these women selling their sexual favors. Just as these women have very little protection if their buyers do not treat them humanely, so are the commodities powerless if the members of society do not respect their commodity relations.

Therefore, a social relation between the commodity *owners* is necessary. It is society, not the commodity itself, which prevents *Q* from taking the commodity without owner *P*’s permission.

In order to relate these objects to one another as commodities, their keepers must relate to each other as persons, whose wills reside in these objects.

Um diese Dinge als Waren aufeinander zu beziehen, müssen die Warenhüter sich zueinander als Personen verhalten, deren Willen in jenen Dingen haust, ...

The persons whose “wills reside in these objects” are the private owners of these objects. If *P* steals *Q*’s commodity, he automatically violates the will of *Q*, whether or not *Q* witnesses the theft or actually needs the commodity that is stolen from him. Whoever wants to use something that is the property of *Q* must have the permission of *Q*. *Q*’s will refers not only to his or her body, but to a circle of things around it. If you *use* a hammer, your will does not reside in the hammer; having one’s will reside in an object is a different relationship than that of using the object. People’s wills reside no longer in their persons, activities, interpersonal relations, but in things.

2.1. [Prerequisites of Commodity Production]

Question 430 Explain in your own words Marx's phrase that the commodity owner's will "resides" in the objects which are his property.

Is this a good thing or not? Where does it have its limits in our society? Are there things for which it is desirable that people's wills reside in them? 2012fa, 2011fa, 2010fa, 2008fa, 2008SP, 2004fa, 1997sp, 1997WI, 1996sp, 1995ut, 1995WI.

Usually Q will only then get P 's permission to use P 's commodity if he can give one of his own commodities in exchange. This leads us back to the topic of this chapter, the exchange process:

In order to appropriate the commodity of the other, and alienate his own, each owner has to consent with the other, i.e., it is an act of will common to both parties.

... so daß der eine nur mit dem Willen des andren, also jeder nur vermittelt eines, beiden gemeinsamen Willensaktes sich die fremde Ware aneignet, indem er die eigne veräußert.

With *personal* property (toothbrush, clothes, home, car) you have the right to exclude others from using these things because they are part of your person. Commodity exchange gives a different reason for denying others the use of the things which are your property: others cannot have your things unless they give you some of theirs. Private property becomes the means to access others' property.

Although both parties freely agree to the exchange, the parties do not share a common goal. In certain acts of exchange, these goals diverge so much that the transaction is best considered an act of coercion, but it is accompanied by a ritual which makes it look like a voluntary act. This "voluntary" nature of property transfers is one of the means by which private property hooks its owners. Property is not assigned and/or denied to you by some authority, which can become the target of your hatred, but you acquire everything you have by an act of your own will. The worker receiving a minimum wage must tell herself that she consented to her employment relation and that she can always quit her job.

The producers are separated in production and connected in the exchange. The legal relation reflects this separation by the concept of private property, and the connection by the contract [Cat89, p. 25]. These two aspects are contradictory to each other.

This agreement between commodity owners necessary to transfer ownership is only one of many examples of a pervasive "split will" on the part of private owners, about which Marx comments elsewhere. On the one hand, the property owners have complete control over their privately owned objects. On the other hand, they must subordinate their wills to a legal framework which forces them to put the respect of private property above everything else, even above their own lives. The private owner's will is therefore split. To be private owner of a commodity means, on the one hand, that one is very selfish, since one can dispose over one's private property without being responsible to anyone. On the other hand, private property can only then be a generally respected principle if the laws of private property take precedence over any human needs. The laws of private property, therefore, turn you into an absolute despot on the one hand, and into a piece of dust on the other. This is a pervasive contradiction for everyone living in a capitalist society. It is especially obvious in situations where ownership of a thing is transferred from one person to another, but this is by far not the only situation where this contradiction comes to the surface.

The keepers must therefore recognize each other as the private owners of their commodities.

Sie müssen sich daher wechselseitig als Privateigentümer anerkennen.

↑ This is the first time Marx uses the word "private owner." Commodity exchange is

2. Exchange Process

only possible if the individuals treat each other as the private owners of their respective commodities. ↓ But this does not mean that the commodity owners first have to enter a legal relation before they can exchange commodities. Rather, by exchanging commodities they implicitly recognize each other as private owners and enter a contract with each other.

This juridical relation, whose form is the contract, whether as part of a developed legal system or not, is a relation between wills in which the economic relation reflects itself.

Dies Rechtsverhältnis, dessen Form der Vertrag ist, ob nun legal entwickelt oder nicht, ist ein Willensverhältnis, worin sich das ökonomische Verhältnis widerspiegelt.

↑ The laws do not create this relation but they only make it explicit. This is argued much more clearly in *Notes on Wagner*, p. [mecw24]553:4–554:1.

By the way, Marx does not say that the juridical relation is a mirror-image of the economic relation, but the juridical relation is like a mirror in which one can see the reflection of the economic relation. This formulation allows the interpretation that the juridical relation has its own autonomy, a modern term for this is “relative autonomy,” it is not a mere derivative of the economic relation.

↓ Although this legal relation is a relation of wills, its content is not created by the individuals but by the economic relations.

The content of this juridical relation or relation of wills is given by the economic relation itself.³⁸

Der Inhalt dieses Rechts- oder Willensverhältnisses ist durch das ökonomische Verhältnis selbst gegeben.³⁸

In this relationship of wills, individuals consider the laws of private property more important than the next person. Individuals remain strangers to each other and only enter into mutual “scratch your back” relations, as described in *Grundrisse* 175:2/o. Marx’s assertion that the content of this relation is given by the economy is reason for hope: people relate to each other in this way not because of human nature, but people are forced to relate this way because of the structure of the society they find themselves in.

Question 434 Which social relations must exist between producers so that they exchange (or buy and sell) their products as commodities? Describe groups or societies which have social relations that preclude exchange between individual members. 2012fa, 2008fa, 2008SP, 2007SP, 2005fa, 1998WI, 1997sp, 1996sp, 1995ut, 1995WI.

The emphasis that this relation of wills obtains its content from the economy is again an implicit criticism of Hegel, for whom the state is the incarnation of the will of the people. Marx says, yes, they have to enter a relation of wills, but its content is not theirs but is given to them by the economy. If they want something that is not prescribed to them by the economy, they face bankruptcy, money pump, loss of job, etc.

Footnote 38 illustrates what it means that the content of the legal relation is given by the economy. Proudhon’s ideals of justice are only desirable in the context of commodity production, yet he considers them “eternal” principles:

³⁸ Proudhon draws the inspiration for his ideal of justice, of ‘eternal justice’, from the juridical relations which the production of commodities has made necessary. This, by the way, also furnishes proof, to the consolation of all would-be capitalists, that the commodity form of the product is as eternal as justice.

³⁸ Proudhon schöpft erst sein Ideal der Gerechtigkeit, der justice éternelle, aus den der Warenproduktion entsprechenden Rechtsverhältnissen, wodurch, nebenbei bemerkt, auch der für alle Spießbürger so tröstliche Beweis geliefert wird, daß die Form der Warenproduktion ebenso ewig ist wie die Gerechtigkeit.

2.1. [Prerequisites of Commodity Production]

↑ It must be comforting for the capitalists and their dupes to read that commodity relations conform with the principles of justice. They infer from this that such a just system must last forever. ↓ This erroneous subordination of the actual commodity relations to an ideal of eternal justice leads to the desire to modify the actual relations wherever they do not conform with this ideal:

^{38 ctd} Then Proudhon turns round and seeks to reform the actual production of commodities, and the corresponding legal system, in accordance with this ideal. What would one think of a chemist who, instead of studying the laws governing actual molecular interactions, and on that basis solving specific problems, claimed that those interactions must be modified in order to conform to the ‘eternal ideas’ of ‘naturalness’ and ‘affinity’? When we say ‘usury’ contradicts ‘eternal justice’, ‘eternal equity’, ‘eternal mutuality’, and other ‘eternal truths’, we do not know any more about it than the fathers of the church did when they said usury was incompatible with ‘eternal grace’, ‘eternal faith’, and ‘God’s everlasting will’.

^{38 ctd} Dann umgekehrt will er die wirkliche Warenproduktion und das ihr entsprechende wirkliche Recht diesem Ideal gemäß ummodellern. Was würde man von einem Chemiker denken, der, statt die wirklichen Gesetze des Stoffwechsels zu studieren und auf Basis derselben bestimmte Aufgaben zu lösen, den Stoffwechsel durch die „ewigen Ideen“ der „naturalité“ und der „affinité“ ummodellern wollte? Weiß man etwa mehr über den „Wucher“, wenn man sagt, er widerspreche der „justice éternelle“ und der „équité éternelle“ und der „mutualité éternelle“ und anderen „vérités éternelles“, als die Kirchenväter wußten, wenn sie sagten, er widerspreche der „grâce éternelle“, der „foi éternelle“, der „volonté éternelle de dieu“?

Question 436 *If Proudhon draws his ideals of justice from commodity production, why does real commodity production then contradict these ideals?* 2008fa, 2005fa, 2003fa.

Also the main text argues that (at least at this level of abstraction) the economic relations determine what people want. Commodities act through people:

The persons exist here for one another only as representatives of commodities, therefore as commodity owners.

Die Personen existieren hier nur füreinander als Repräsentanten von Ware und daher als Warenbesitzer.

Marx’s remark that individuals exist “here” only as representatives of commodities must be seen in the same spirit as his remark in footnote 15 to paragraph 54:1/o of chapter One that “wages is a category that does not exist yet at this stage of our presentation.” Marx does not mean that people are nothing other than representatives of the commodity relation; he rather means that right now, at the present stage of the presentation of the basic laws of the capitalist economy, this is all we need to know about individuals. Only after having understood the capitalist *social* relations can we discuss in depth the specific ways in which *individuals* fit themselves into or act to transform these relations.

Although people are more than the representatives of commodities, the legal relations necessary for unhindered commodity circulation reduce them to such representatives. In capitalism, people relate to each other not first and foremost as people but first and foremost as property owners. If you as a human being need something, for instance, food for survival, or medicine because you are ill, but you as a property owner cannot pay for it, then the property-owner aspect of you is considered by society more important than the human-being aspect of you. This makes capitalism an inherently *violent* system.

As we proceed to develop our investigation, we shall find, in general, that the persons’ economic character masks are mere personifications of the economic relations as whose

Wir werden überhaupt im Fortgang der Entwicklung finden, daß die ökonomischen Charaktermasken der Personen nur die Personifikationen der ökonomischen Verhält-

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carriers they confront each other.

nisse sind, als deren Träger sie sich gegenüberstehen.

Fowkes translates *Charaktermasken* with “the characters who appear on the economic stage” Neither the

Moore-Aveling nor the Fowkes translation uses the term character mask. (The French has “masques divers.”) The term

“*Charaktermaske*” was already used in 88:1. Something extraneous to human beings, often taken on only temporarily.

The word “character mask” comes from Greek theatre, where the actors wore masks representing the characters they were representing. A character mask is a surface relationship: it consists of the social roles which people play in their interactions. These roles are not a creation of the individuals themselves, but an outgrowth of the economic relations in which these individuals find themselves.

When we meet character masks again in the later development, they will be less innocuous than the fleeting character masks of buyer and seller discussed here. Marx wrote to Engels on April 2, 1858:

This simple circulation, considered as such—and it is the surface of bourgeois society, in which the deeper operations, from which it emanates, are extinguished—evinces no distinction between the subjects of exchange, save formal and evanescent ones ... While everything may be “lovely” here, it will soon come to a sticky end, and this as a result of the law of equivalence.

Diese einfache Zirkulation für sich betrachtet, und sie ist die Oberfläche der bürgerlichen Gesellschaft, worin die tiefern Operationen, aus denen sie hervorgeht, ausgelöscht sind, zeigt keinen Unterschied zwischen den Subjekten des Austauschs, außer nur formelle und verschwindende ... Kurz, es ist hier alles „scheene“, wird aber gleich ein Ende mit Schrecken nehmen, und zwar infolge des Gesetzes der Äquivalenz.

In chapter Twenty-Three, 566:1, Marx shows how the character masks of *capitalist* and *worker* are no longer transitory but remain attached to the same persons.

2.2. [The Dilemmas of Barter and their Accommodation]

The long first paragraph of chapter Two said: products of labor can become commodities only if the commodity owners relate to each other in certain specific ways. It explored the relations of wills necessary for commodity production to be possible. After this, Marx addresses the opposite question: how does the commodity relation, once it is established, affect the interests and therefore the wills and actions of the commodity owners?

Question 438 *How are someone’s interests, someone’s will, and someone’s actions inter-related?* 2013fa, 2012fa.

The exchange process is the simplest economic interaction between individuals on the surface of the economy. In the First edition of *Capital*, [megaII/5]51:1, just before the section which in later editions was to become chapter Two, Marx explains why he is looking at the exchange process now:

The commodity is *immediate unity of use-value and exchange-value*, i.e., of two opposite moments. It is, therefore, an immediate

Die Ware ist *unmittelbare Einheit von Gebrauchswert und Tauschwert*, also zweier Entgegengesetzten. Sie ist daher ein unmittel-

contradiction. This contradiction must develop as soon as the commodity is not, as it has been so far, analytically considered once under the angle of use-value, once under the angle of exchange-value, but as soon as it is placed as a whole into an actual relation with other commodities. The *actual* relation of commodities with each other, however, is their *exchange process*.

telbarer *Widerspruch*. Dieser Widerspruch muß sich entwickeln, sobald sie nicht wie bisher analytisch bald unter dem Gesichtspunkt des Gebrauchswerts, bald unter dem Gesichtspunkt des Tauschswerts betrachtet, sondern als ein Ganzes wirklich auf andere Waren bezogen wird. Die *wirkliche* Beziehung der Waren aufeinander ist aber ihr *Austauschprozeß*.

Here is an attempt to formulate in my own words, and to elaborate, the ideas of the above passage. It is not incorrect to say that chapter One discusses the *inner* anatomy of each commodity, and chapter Two discusses the most direct interactions *between* commodities. However, a characterization which goes a little deeper, and better expresses the connection between the two chapters, would be: chapter One discusses use-value and exchange-value separately, while Two discusses the relationship between use-value and exchange-value. Use-value and exchange-value do not relate with each other *within the commodity*. If we look at each individual commodity separately, use-value and exchange-value are just sitting next to each other like strangers in a train. This is what Marx means by “immediate unity.” There is no mediation between the two. Yet the commodity silently points to the place where the connection between use-value and exchange-value matters—because it is a commodity only *in relation to other commodities*. And if we look for a situation where this relation is not merely theoretical but practical we arrive at the exchange process. The exchange process is a transaction in which the relation between use-value and exchange-value plays a role: the owners trading their commodities take *both* use-value and exchange-value into consideration.

2.2.a. [A Commodity Disobeys its Owner]

A simple commodity producer going to market in order to barter his products pursues two goals with the same transaction. On the one hand, he wants this exchange to yield the use-value that best suits his needs (this is the personal dimension of the transaction). On the other, he wants to realize the value of the commodity given in exchange (this is the social dimension of the transaction). These two goals do not complement each other harmoniously but on the contrary pull in different directions and obstruct each other. They are so much at odds that Marx metaphorically represents them as the goals of two different agents, of the commodity producer himself on the one hand, and his commodity on the other.

↓ Marx first discusses the point of view of the commodity. The commodity is depicted as having its own will because the market relations between commodities are beyond the control of the commodity owner. The commodity, representing the social dimension of the exchange transaction, is single-mindedly interested in realizing its *value*, and is therefore willing to exchange itself with any other commodity which has the same value as itself.

95:1/o What chiefly distinguishes a commodity from its owner is the fact that for the commodity, the body of every other commodity counts only as the form of appearance of its own value. A born leveller and cynic, it is always ready to exchange not only soul, but body, with each and every

100:1 Was den Warenbesitzer namentlich von der Ware unterscheidet, ist der Umstand, daß ihr jeder andre Warenkörper nur als Erscheinungsform ihres eignen Werts gilt. Geborner Leveller und Zyniker, ist sie daher stets auf dem Sprung, mit jeder andren Ware, sei selbe auch ausgestattet mit

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other commodity, even one that is more repulsive than Maritornes herself.

mehr Unannehmlichkeiten als Maritorne, nicht nur die Seele, sondern den Leib zu wechseln.

The first few words “*was den Warenbesitzer namentlich von der Ware unterscheidet*” lead us to expect that the commodity owner will be discussed. And taken as a whole, this paragraph does indeed discuss the commodity owner. But the second half of the first sentence and the second sentence

turn to the commodity as the main subject, not the commodity owner. The thing in which the commodity owner is interested is introduced as the thing in which the commodity itself is *not* interested. And before he gets to this, Marx delineates what commodities *are* interested in. In other words, Marx starts

with the commodity owner, then switches to the commodity, and then goes back to the commodity owner. This back-and-forth is confusing and clumsy. Therefore I eliminated one of these reversals in the translation: in the translation I first speak of the commodity and then of the commodity owner.

Question 440 Why does Marx, in 179:1, call the commodities “born levellers and cynics”? [2013fa](#), [2012fa](#).

↑ The phrase “exchange not only soul but body” means that the commodity is not only willing to relate to the other commodity in theory, (exchange its soul, i.e., have an intimate conversation), but it is ready to put this relationship into practice and change places with the other commodity.

Maritornes is a character from Cervantes’ novel *Don Quixote*.

Whenever a commodity owner tries to exchange a commodity, he or she is entering a society-wide relationship—because this exchange determines whether the commodity offered fits into the social division of labor. Any exchange (short of a liquidation sale) is validation of the labor inside the commodity as socially necessary labor. The use-value of the other commodity for which a given commodity is exchanged is irrelevant for this validation. This is why Marx says: the commodities are not interested in the use-values of the other commodity for which they are exchanged. Any use-value other than their own can serve as a representation of their value.

Question 442 Do you recall other places in *Capital* in which Marx says that the commodities are not interested in use-values? Give one citation and show how the argument there is different or equal or related to what Marx says here.

Question 443 In chapter Two, Marx depicts commodities as conscious beings which are eager to be exchanged, but do not care about the use-value of the commodity they are exchanged for. Why are commodities, which are inanimate things, depicted here as beings with their own will which comes into conflict with the will of their owners, and whose only concern about the use-value of the other commodity is that it must be different from their own? [2012fa](#), [2011fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2003fa](#), [2001fa](#), [2000fa](#), [1998WI](#), [1997ut](#), [1997sp](#), [1997WI](#), [1996ut](#), [1996sp](#), [1995ut](#), [1995WI](#).

↓ The exchange transaction also has a private dimension, because it also decides whether the commodity producer will be rewarded for the labor he or she put into the commodity. This is a different point of view than the social point of view. In this private view, the use-value of the commodity received in exchange matters very much. If the commodity which the producer receives in return is not useful to him or her, then the producer’s labor may be socially validated, yet the producer’s personal objective, to receive the use-value he or she needs, is not achieved. This private dimension of the exchange is depicted here as the point

2.2. [Dilemmas of Barter]

of view of the commodity-owner. In contrast to the commodity itself, the commodity owner is very interested in the use-value of the other commodity:

The commodity's lacking sense for the concrete bodily features of the other commodity is supplemented by the five or more senses of the commodity owner.

Diesen der Ware mangelnden Sinn für das Konkrete des Warenkörpers ergänzt der Warenbesitzer durch seine eignen fünf und mehr Sinne.

“Sinn für das Konkrete des Warenkörpers” is a pun. “Sinn für das Konkrete” means practical

sense. The “Konkrete des Warenkörpers” is its use-value aspect, produced by concrete labor.

⇓ One can even say that the owner's actions are *only* governed by use-values—if one extends the concept of use-value a little. The five or more senses of the commodity owner do not include a sense for the social relations in which the commodity is embedded.

For the owner, his commodity possesses no immediate use-value. If it did, he would not bring it to market. It has use-value for others. For him, immediately, its only use-value is that of being a carrier of exchange-value, and therefore a means of exchange.³⁹

Seine Ware hat für ihn keinen unmittelbaren Gebrauchswert. Sonst führte er sie nicht zu Markt. Sie hat Gebrauchswert für andere. Für ihn hat sie unmittelbar nur den Gebrauchswert, Träger von Tauschwert und so Tauschmittel zu sein.³⁹

Marx distinguishes here two kinds of use-value. The *immediate* use-value is the use-value we know from the beginning of chapter One, this is the use-value which only realizes itself in use or consumption (see 46:1). The use-value referred to in the fourth sentence, the use-value of a commodity as means of exchange, is its *formal* use-value, see 100:2 later in chapter Two.

Question 445 In 179:1, Marx seems to enjoy the play of words that the use-value which the commodity has immediately is not an immediate use-value for its owner. Explain. 2013fa, 2012fa, 2009fa, 2008fa, 2008SP, 2005fa.

⇓ Footnote 39 clarifies once more the distinction between immediate and formal use-value, and at the same time documents that this distinction goes all the way back to Aristotle:

³⁹ ‘For twofold is the use of every object . . . The one is peculiar to the object as such, the other is not, as a sandal which may be worn and is also exchangeable. Both are uses of the sandal, for even he who exchanges the sandal for the money or food he is in need of, makes use of the sandal as a sandal. But not in its natural way. For it does not exist for the sake of being exchanged’ (Aristotle, Republic, I, i, c. 9).

³⁹ „Denn zweifach ist der Gebrauch jedes Guts.—Der eine ist dem Ding als solchem eigen, der andre nicht, wie einer Sandale, zur Beschuhung zu dienen und austauschbar zu sein. Beides sind Gebrauchswerte der Sandale, denn auch wer die Sandale mit dem ihm Mangelnden, z.B. der Nahrung austauscht, benutzt die Sandale als Sandale. Aber nicht in ihrer natürlichen Gebrauchsweise. Denn sie ist nicht da des Austausches wegen.“ (Aristoteles, „De Rep.“, I, I, c. 9.)

Question 446 Aristotle said that exchange-value is a second use-value of things. Marx apparently considers this a too narrow characterization, see Contribution, 283:1/o. Why? 2012fa.

Back to the main text of the paragraph. Since the commodity is a non-use-value for its owner but a use-value for others, Marx concludes:

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This is why he wants to relinquish it, in exchange for commodities whose use-values are of service to him.

Darum will er sie veräußern für Ware, deren Gebrauchswert ihm Genüge tut.

↑ This is the Hegelian conclusion that becoming is the union of being and not being. But while Hegel begins with being, Marx begins here with not being—which makes sense, since the process of becoming begins with the state of not being. The commodity (say a sandal) is not an immediate use-value for its producer. This not-being implies being: the sandal has use-value as a means of exchange *exactly because* it does not have immediate use-value. (The sandals worn by their owner are not available for exchange.) As a next step, the thing which is useful because it is not useful enters a process where it becomes useful, since it is the intention of the exchange to turn the sandal into something which the owner can actually use. Using the sign paradigm, one might also say: for the linen weaver, the linen is a sign for the use-value she can acquire with the linen.

2.2.b. [Circular Dependency between Use-Value and Exchange-Value]

↓ Marx has not yet specified how this “becoming” of the use-value in the exchange-process is achieved. A common-sense solution would be that the commodity producers simply barter their goods with each other. However Marx argues that a different solution is needed because of the contradictions inherent in direct barter. Marx, the dialectician, views direct barter as an attempt to jump directly from the original position to the negation of the negation, or to make direct use of an absence without first turning this absence into a presence.

This is not the first time that Marx points out a real-life contradiction which may not be obvious to the practical agents. This time, Marx’s argument that direct barter is plagued with prohibitive contradictions is especially unintuitive, because in simple situations, direct barter is clearly possible and often done. Since the result Marx is trying to derive is unintuitive, he is very thorough and formulates the contradictions of the exchange in three different ways. After becoming aware of these contradictions, the reader will not only see why direct barter is infeasible in any other than the simplest situations, but also understand what arrangements are necessary so that practical life can go on despite these contradictions, and thirdly, in section 2 of chapter Three, how this contradiction manifests itself after these arrangements are made.

Since it is possible, in simple situations, to sneak through between the blades of this contradiction, one should not be surprised that Marx’s opening move in the argument is to get away from the individual situation and to generalize. Not only the weaver but also every other commodity producer enters the market with the intention to convert use-values for others into something they themselves can use.

All commodities are non-use-values for their owners, and use-values for their non-owners.

Alle Waren sind Nicht-Gebrauchswerte für ihre Besitzer, Gebrauchswerte für ihre Nicht-Besitzer.

↑ Marx likes inversions.

Question 447 Give other examples of inversions in Marx’s Capital. 2008fa.

Consequently, they all must change hands.

Sie müssen also allseitig die Hände wechseln.

2.2. [Dilemmas of Barter]

↑ This itself is not yet contradictory. A transfer of products from producer to consumer occurs in every society with division of labor. ↓ The contradiction lies in the social form through which this is achieved.

But this change of hands is accomplished by their exchange. The exchange is an interaction between them that is based on their values and that actualizes them as values.

Aber dieser Händewechsel bildet ihren Austausch, und ihr Austausch bezieht sie als Werte aufeinander und realisiert sie als Werte.

“Is accomplished by” is a somewhat free translation of “*bildet*.” I chose this translation because I believe that “*dieser Händewechsel bildet ihren Austausch*” is a contracted version of what should strictly have been “*dieser Händewechsel wird durch ihren Austausch gebildet*.”

[I]hr Austausch bezieht sie als Werte aufeinander does not mean that people, by exchanging commodities, only or primarily look at the values of these things, but it means to the contrary that the producers can only exchange these commodities because the commodities are values. I.e.,

exchange is not an interaction establishing the values of the commodities, but it is an interaction based on the values of the commodities. Through this interaction, the values of the commodities become actual.

↑ This last sentence begins with a “but” because we started from use-values “but” ended up with values. ↓ Marx points this out in the next sentence:

It follows that commodities must be realized as values before they can be realized as use-values.

Die Waren müssen sich daher als Werte realisieren, bevor sie sich als Gebrauchswerte realisieren können.

↑ “Realizes them as values” means: having the congealed abstract labor in the commodities validated as socially necessary labor. Only if the labor is socially necessary can the commodity be exchanged. ↑ This is a temporal condition for the surface process: in order to get the desired use-value, i.e., in order to benefit from the labor put into the commodity one has produced, one first has to realize the *value* of this commodity. And what are the conditions for the realization of my commodity’s value? Two conditions: on the one hand, the labor going into my commodity must be socially necessary labor only, and on the other, the *use-value* I am producing must be needed by others. ↓ Marx formulates here only the second of these conditions, because this is the condition which leads us in a circle.

96:1 On the other hand, they must stand the test as use-values before they can be realized as values. For the labor expended on them only counts in so far as it is expended in a form which is useful for others.

100:2/o Andererseits müssen sie sich als Gebrauchswerte bewähren, bevor sie sich als Werte realisieren können. Denn die auf sie verausgabte menschliche Arbeit zählt nur, soweit sie in einer für andre nützlichen Form verausgabt ist.

↑ I.e., my commodity being useful for you is the condition for me being able to acquire your commodity through the exchange.

The interweaving of these two conditions puts everyone who needs the use-values I am producing into a contradictory position. My use-value satisfies the first condition; it is a use-value for you. You cannot keep this a secret from me; you must tell me that you want my commodity. But it is in your interest to convince me that the labor which I put into my commodity does not meet the standards of being socially necessary labor. Therefore you invent some flaws in my commodity, in order to convince me that I should accept the commodity you are offering me.

If it were a monetary exchange, I could easily check whether you are representative for the general social conditions, or whether you are playing games in order to get something

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for nothing. If you offer me 19 shillings instead of the usual 20 for my coat, because you say the coat is of inferior quality, then I can offer my coat for 20 shillings to everybody else in society. If I don't find any takers, i.e., if nobody in society who needs a coat is willing to pay 20 shillings for it, then I must agree with you that 20 shillings is too much.

This simple check does not work in the absence of money. If I offer to give you my coat for 20 yards of linen because I need linen, and you make the counteroffer of 19 yards of linen for my coat, then I cannot check whether 20 yards of linen is asking for too much. If I offer my coat to everyone for 20 yards of linen and don't find any takers, this may simply be due to the fact that nobody in society who has linen to give in exchange needs a coat. This does not mean my coat is superfluous, because others, people who do not have linen to give, may need the coat.

This contradictory situation also tempts me to play games. Even if I happen to need your linen, it is easy for me to say that I do not really need it, that I only take linen because Christmas is coming and I need some gifts—in other words, I do not depend on linen, I could accept almost anything else. Since I am the only consumer of linen who is offering coats, you cannot check this by offering 19 yards of linen to other coat makers. But if you are offering money you can do this: you can simply go to other tailors (or visit their web sites) and check their prices.

These stories have to purpose to show that the two requirements enumerated by Marx are indeed in contradiction to each other, and that the solution which Marx is working towards—breaking the barter into first sale then purchase—is a resolution for this contradiction.

↓ Marx himself clinches this contradiction in a slightly different way. He says: we are in a circle in which the condition for the exchange of commodities is—the exchange of commodities already:

However, only their exchange can prove whether that labor is useful for others, i.e., whether its product satisfies the needs of others.

Ob sie andren nützlich, ihr Produkt daher fremde Bedürfnisse befriedigt, kann aber nur ihr Austausch beweisen.

↑ This entire argument is an abbreviated version of a longer argument in *Contribution*, 284:1/o. In *Contribution*, Marx calls this “a defective circle of problems, in which the solution of one problem presupposes the solution of the other.” Just as Marx is taking contradictions seriously, he is also taking infinite regress seriously. How can this infinite regress be solved? There is one commodity which does not have to prove that it is a use-value in order to be exchanged, this is money.

Question 451 *Is it true that exchange is the ultimate proof that a commodity is useful? What if the consumer who acquires the commodity in exchange takes it home and discovers that it is not useful after all?* [Answer](#), [2013fa](#), [2012fa](#), [2011fa](#), [2009fa](#), [2008SP](#), [2007fa](#).

Question 452 *An infinite regress similar to the one described by Marx in 179:2 exists in the presence of money: Everyone can purchase only after they have sold, but my sale is somebody else's purchase. Would Marx call this, too, “a defective circle of problems, in which the solution of one problem presupposes the solution of the other,” as he did in 284:1/o?*

2.2.c. [Contradiction Between Social and Individual Aspect]

We have arrived, once again, at an impasse situation: the selection of the use-values by the commodity consumer relies on the realization of the values they have produced, but this

realization already presupposes the selection of use-values by other consumers, and so on ad infinitum. Before developing a solution, Marx shows that this impasse is even deeper than what we have seen so far. Not only do realization of value and selection of use-values pre-suppose each other in a circular way, they also *contradict* each other. Here is one pole of this contradiction:

96:2 The owner is willing to part with his commodity only in return for other commodities whose use-values satisfy his needs. To that extent, exchange is for him a purely individual process.

101:1 Jeder Warenbesitzer will seine Ware nur veräußern gegen andre Ware, deren Gebrauchswert sein Bedürfnis befriedigt. Sofern ist der Austausch für ihn nur individueller Prozeß.

↑ Regarding the commodity the market participant is acquiring, the exchange process is a purely individual process; the commodity owner does not have to consult with anyone and is not bound by any social constraints regarding the use-value he is selecting. ↓ Regarding the commodity he is giving in exchange, his expectation is that he will get a fair equivalent for it.

On the other hand, he wishes to realize his commodity as a value, i.e., in any other commodity of equal value which suits him, regardless of whether his own commodity has any use-value for the owner of the other commodity or not.

Andrerseits will er seine Ware als Wert realisieren, also in jeder ihm beliebigen andren Ware von demselben Wert, ob seine eigne Ware nun für den Besitzer der andren Ware Gebrauchswert habe oder nicht.

↑ But here is the hitch: he wants credit for his commodity according to its *value*, whether or not it has use-value for the recipient. He wants to have exclusive right to decide about the use-values he is going to consume, with nobody interfering in this decision, and at the same time he does not want to be bothered with looking at the choices made by others when they select their own use-values.

To that extent, exchange is for him a general social process.

Sofern ist der Austausch für ihn allgemein gesellschaftlicher Prozeß.

These two requirements exclude each other. A process in which everyone is free to make individual choices cannot be at the same time a process following social laws. Especially considering that these processes contradict each other. The second requirement can only be fully met if everyone has to accept any use-value in exchange for their own which has the same value as their own, therefore they are not free to choose which use-value they want to receive for their own commodity—i.e., for them, the first criterion does not hold. ↓ Marx formulates this mutual exclusion as follows:

But the same process cannot be both: be exclusively individual for all owners of commodities, and at the same time be exclusively social and general.

Aber derselbe Prozeß kann nicht gleichzeitig für alle Warenbesitzer nur individuell und zugleich nur allgemein gesellschaftlich sein.

Question 453 Which contradictions do commodity owners face if they want to barter their products (as opposed to buying and selling them)? Make up imaginary dialogues on the market place in which these contradictions are addressed. 2013fa, 2012fa, 2008SP, 2003fa, 2002fa, 1997ut, 1997WI, 1996sp, 1995ut, 1995WI.

This contradiction between the individual and the social dimension of the exchange process is a matter of our daily experience. We are confronted with this contradiction whenever we have to decide whether we want to buy exactly the use-value we want and pay premium price for it, or whether we prefer to make do with whatever is on sale.

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2.2.d. [More Specific Formulation of the Contradiction]

Through a “closer” look, Marx arrives at a more specific formulation of the contradiction—a formulation from which he will derive, in the next step, a solution for this contradiction:

96:3–97:0a Let us take a closer look. The owner of a commodity considers every other commodity as the Particular equivalent of his own commodity, which makes his own commodity the General equivalent of all other commodities.

101:2 Sehn wir näher zu, so gilt jedem Warenbesitzer jede fremde Ware als besonderes Äquivalent seiner Ware, seine Ware daher als allgemeines Äquivalent aller andren Waren.

I translated the passive “*gilt*” with the active “considers” because the next sentence refers to it as an act.

Question 454 In 180:2, Marx writes: “The owner of a commodity considers every other commodity as the Particular equivalent of his own commodity, which makes his own commodity the General equivalent of all other commodities.” This automatic link between the Expanded form of value (whith its multiple Particular equivalents) and the General forms of value is in contradiction to section 3 of chapter One. In that earlier section, the General form of value did not immediately flow from the Expanded form, but a social act was necessary to establish it. Comment.

The commodity-owner expresses the value of his commodity in a large circle of use-values of other commodities, and he wishes that others would reciprocate this expression. Applying the categories from section 3 in chapter One, which provide a bird’s eyes view of the multitude of individual activities and motivations, every commodity producer wishes his commodity would be directly exchangeable for those other commodities, i.e., the other traders would use his commodity as General equivalent. This wish cannot be fulfilled because there can only be one General equivalent.

But since every owner does the same thing, none of the commodities is General equivalent, and the commodities do not possess a shared relative value form in order to set each other equal as values and compare the magnitudes of their values.

Da aber alle Warenbesitzer dasselbe tun, ist keine Ware allgemeines Äquivalent und besitzen die Waren daher auch keine allgemeine relative Wertform, worin sie sich als Werte gleichsetzen und als Wertgrößen vergleichen.

For every commodity producer, her own product is the point of reference, it is her treasure, whose value she wants to express in all other products. It is the “money” with which she wishes to buy the other commodities. But overall, there can only be one money in society. Therefore the points of view of different individuals—which by their nature do not spontaneously fit together but have to be adjusted to each other—cannot even be formulated in a common language that make such an adjustment possible. This is why Marx writes that in this situation, the commodities do not have a general *form of value*. ↓ Their confrontation on the market does not take a form which reflects the social fact that they are commodities.

Therefore they do not even confront each other as commodities, but only as products or use-values.

Sie stehn sich daher überhaupt nicht gegenüber als Waren, sondern nur als Produkte oder Gebrauchswerte.

↑ They *are* commodities, but their interactions do not do justice to this fact. Giving the objects a commodity form means providing a language in which the individuals can express, in a socially coherent manner, their individual preferences regarding the use-values and

exchange-values of the things they are producing. Such a common language is necessary so that the different people's preferences can be respected and reconciled. But such a language has not yet been created. What individuals spontaneously try to do for their own benefit does not cohere into a social relation shared by all.

2.2.e. [The Deed]

The more specific formulation of the contradiction reveals a lack of *social* coordination which gives a hint where the solution of this contradiction must be found. It cannot be resolved on an individual level but requires a *social* act. Society has a way out, even if the individuals do not. Society can designate a certain commodity as General equivalent. This gives the commodities a social form in which the inherent dilemmas of the commodity, though still present, are expressed in a coherent way equally for everyone, so that they no longer obstruct individual activity but channel it. If the individuals view their connection to the social labor process no longer in an idiosyncratic and incoherent manner, they are able to align their activities with each other. ↓ The “preparatory act of circulation” necessary for this took place a long time ago:

97:0b–97:1 In their dilemma our commodity-owners think like Faust: ‘In the beginning was the deed.’

101:3–4 In ihrer Verlegenheit denken unsre Warenbesitzer wie Faust. Im Anfang war die Tat.

↑ This is a reference to Goethe's *Faust*, Part I, Scene 3, Faust's Study. Faust is reading the Bible “at the beginning was the word” and disagrees: “at the beginning was the *deed!*”

Exam Question 455 Which “deed” is Marx referring to in the following passage: “In their dilemma our commodity-owners think like Faust: ‘In the beginning was the deed.’ They have therefore already acted before thinking.” [Answer](#), [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008SP](#), [2007SP](#), [2004fa](#), [2003fa](#), [2000fa](#), [1999SP](#), [1997ut](#), [1997sp](#), [1997WI](#), [1996sp](#), [1995WI](#).

They have therefore already acted before thinking.

Sie haben daher schon gehandelt, bevor sie gedacht haben.

Implicit in Marx's formulation here is an important distinction:

- As individuals, humans first think and then act, and therefore act purposefully.
- As a society, they act before they think.

The laws of the commodity nature come to fruition in the natural instinct of the commodity owners.

Die Gesetze der Warennatur betätigen sich im Naturinstinkt der Warenbesitzer.

↑ The word “natural instinct” is a pun: it is not an instinct which the commodity owners have *by* nature, but it is an insight *into* the commodity nature which the commodity owners gain by their spontaneous market activity, but which they probably would not be able to formulate (this is why Marx calls this insight an “instinct.”) The remainder of this paragraph, which is a nutshell summary of section 1.3, explains this process:

They can only relate their commodities to each other as values, and therefore as commodities, if they place them in a polar relationship with a third commodity that serves

Sie können ihre Waren nur als Werte und darum nur als Waren aufeinander beziehen, indem sie dieselben gegensätzlich auf irgendeine andre Ware als allgemeines Äqui-

2. Exchange Process

as the General equivalent. We concluded this from our analysis of the commodity. But only a social deed can turn one specific commodity into the General equivalent. The social action of all other commodities, therefore, excludes one specific commodity, in which all others represent their values. The natural form of this commodity thereby becomes the socially recognized equivalent form. Through the agency of the social process it becomes the specific social function of the excluded commodity to be the general equivalent. It thus becomes—money.

‘These have one mind, and shall give their power and strength unto the beast’ (Revelation 17:13). ‘And that no man might buy or sell, save that he had the mark, or the name of the beast, or the number of his name’ (Revelation 13:17).

valent beziehn. Das ergab die Analyse der Ware. Aber nur die gesellschaftliche Tat kann eine bestimmte Ware zum allgemeinen Äquivalent machen. Die gesellschaftliche Aktion aller andren Waren schließt daher eine bestimmte Ware aus, worin sie allseitig ihre Werte darstellen. Dadurch wird die Naturalform dieser Ware gesellschaftlich gültige Äquivalentform. Allgemeines Äquivalent zu sein wird durch den gesellschaftlichen Prozeß zur spezifisch gesellschaftlichen Funktion der ausgeschlossenen Ware. So wird sie—Geld.

„Illi unum consilium habent et virtutem et potestatem suam bestiae tradunt. Et ne quis possit emere aut vendere, nisi qui habet characterem aut nomen bestiae, aut numerum nominis ejus.“ (Apokalypse.)

Question 456 *Why can commodity owners relate their commodities to each other as commodities only if they relate them to each other as values? Also explain what it means to “relate their commodities to each other as commodities” and “relate their commodities to each other as values.” 2012fa.*

And indeed, there are no direct exchanges of commodities in modern markets. Everything is sold and purchased, only a tiny fraction of the goods are directly bartered. The form $C - M - C$, which replaces the direct barter, will be discussed in chapter Three. In 114:2, Marx will pick up the thread from here.

2.3. [Historical Development of the Commodity Form]

Since the resolution of the contradictions of commodity exchange requires a social deed, Marx looks now at the history of the commodity form in order to see when this deed happened. It turns out that this social deed was not a one-time act (so that commodity production first existed before this social deed and then after it), but that the commodity form gradually emerged along with commodity production itself.

97:2 The money crystal is a necessary product of the exchange process, in which different products of labor are in fact equated with each other, and thus are in fact converted into commodities.

101:5/o Der Geldkristall ist ein notwendiges Produkt des Austauschprozesses, worin verschiedenartige Arbeitsprodukte einander tatsächlich gleichgesetzt und daher tatsächlich in Waren verwandelt werden.

↑ Marx does not say here “money is a necessary product of the exchange of commodities,” but he says that money is necessary product of the exchange of *products* which by this exchange are converted into commodities. I.e., the development of money and the development of commodity production go in parallel. ↓ Marx gives a very abstract argument why this must be so. The next sentence is parallel to 78:4:

2.3. [History of Commodity]

The historical broadening and deepening of exchange develops the opposition between use-value and value dormant in the nature of the commodity.

Die historische Ausweitung und Vertiefung des Austausches entwickelt den in der Warenatur schlummernden Gegensatz von Gebrauchswert und Wert.

Both translations (Moore-Aveling and Fowkes) say “latent” instead

of “dormant.” This is the epistemic fallacy. One does not become

invisible if one falls asleep.

↑ With the increasing variety of commodities on the market, the value and use-value of each commodity come more and more in contradiction with each other.

Question 458 *How does the historical broadening and deepening of exchange develop the opposition between use-value and value dormant in the nature of the commodity?* 2008SP.

↓ In order to practically handle this contradiction, its two poles have to be spread over two different commodities: the ordinary commodity representing the use-value, and the money commodity representing the value.

The need to have an external representation of this opposition for the purposes of commercial intercourse generates the drive towards an independent form of value. It finds neither rest nor peace until this independent form has been achieved once and for all by the differentiation of commodities into commodities and money.

Das Bedürfnis, diesen Gegensatz für den Verkehr äußerlich darzustellen, treibt zu einer selbständigen Form des Warenwerts und ruht und rastet nicht, bis sie endgültig erzielt ist durch die Verdopplung der Ware in Ware und Geld.

↑ Marx connects here the external expression of the inner nature of the commodity with the practical necessities of commerce. ↓ Since commodity production develops gradually, and with it its (initially dormant) inner contradictions, and since these contradictions, the more they develop, the more urgently they need external expression—the development of commodity to money parallels the development of commodity production.

At the same rate, then, as the transformation of the products of labor into commodities is accomplished, one particular commodity is transformed into money.⁴⁰

In demselben Maße daher, worin sich die Verwandlung der Arbeitsprodukte in Waren, vollzieht sich die Verwandlung von Ware in Geld.⁴⁰

In the light of this close historical connection between form and content, Gray’s theory of labor money seems especially absurd.

⁴⁰ From this we may form an estimate of the craftiness of petty-bourgeois socialism, which wants to perpetuate the production of commodities while simultaneously abolishing the ‘antagonism between money and commodities’, i.e. while abolishing money itself, since money only exists in and through this antagonism. One might just as well abolish the Pope while leaving Catholicism in place. For more on this point see my work *A Contribution to the Critique of Political Economy*, p. 320:2–321:3 ff.

⁴⁰ Danach beurteile man die Pffigkeit des kleinbürgerlichen Sozialismus, der die Warenproduktion verewigen und zugleich den „Gegensatz von Geld und Ware“, also das Geld selbst, denn es ist nur in diesem Gegensatze, abschaffen will. Ebenso wohl könnte man den Papst abschaffen und den Katholizismus bestehen lassen. Das Nähere hierüber sieh in meiner Schrift „Zur Kritik der Pol. Oekonomie“, p. 320:2–321:3 sqq.

This footnote 40 has a similar theme as footnote 24 to paragraph 79:1 in section 3 of chapter One.

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The first stage in the historical development of the commodity form is what Marx calls the direct barter of products:

Question 460 *Why is the occasional exchange of surplus products between tribes not an exchange of “commodities” but one of “products”?* 2012fa, 2011fa, 2008fa, 2008SP, 2005fa, 2000fa, 1998WI, 1997ut, 1997WI, 1996sp, 1995ut, 1995WI.

98:1 The direct barter of products in one respect does and in another respect does not yet have the form of the Simple expression of value. That form was x commodity $A = y$ commodity B . The form of the direct barter of products is: x use-value $A = y$ use-value B .⁴¹

↓ Footnote 41 refers to a situation which, as it so happens, is described at the very beginning of Jevons’s [Jev75]. But Jevons did not recognize that this was not barter but a social form preceding barter:

⁴¹ So long as a chaotic mass of articles is offered as the equivalent for a single article (as is often the case among savages), instead of two distinct objects of utility being exchanged, we are only at the threshold of even the direct exchange of products.

↓ The remainder of the paragraph describes the transition from direct barter of use-values to the exchange of commodities.

The articles A and B in this case are not as yet commodities, but become so only through the act of exchange.

Two conditions must be met for products to become commodities.

The first mode in which an object of utility is potentially an exchange-value is that it is a non-use-value for its owner, a certain amount of use-value exceeding its owner’s immediate needs.

102:1/o Der unmittelbare Produktaustausch hat einerseits die Form des einfachen Wertausdrucks und hat sie andererseits noch nicht. Jene Form war x Ware $A = y$ Ware B . Die Form des unmittelbaren Produktaustausches ist: x Gebrauchsgegenstand $A = y$ Gebrauchsgegenstand B .⁴¹

⁴¹ Solange noch nicht zwei verschiedene Gebrauchsgegenstände ausgetauscht, sondern, wie wir das bei Wilden oft finden, eine chaotische Masse von Dingen als Äquivalent für ein Drittes angeboten wird, steht der unmittelbare Produktaustausch selbst erst in seiner Vorhalle.

Die Dinge A und B sind hier nicht Waren vor dem Austausch, sondern werden es erst durch denselben.

Die erste Weise, worin ein Gebrauchsgegenstand der Möglichkeit nach Tauschwert ist, ist sein Dasein als Nicht-Gebrauchswert, als die unmittelbaren Bedürfnisse seines Besitzers überschießendes Quantum von Gebrauchswert.

Whenever Marx uses the word “Dasein” he refers to specific relations in which a thing stands. An accurate though verbose translation of the term “Dasein” in the sentence: “Die erste Weise ... ist sein Dasein als Nicht-Gebrauchswert” would be: “The first mode ... is to stand in a relation in which it is a non-use-value.” We are talking

here about an object of utility, i.e., something which, by definition, has a use-value. Such an object can become a commodity only if it stands in a relation in which its use-value is, so to say, turned off—in other words, if it does not have a use-value for its owner. Instead of the above accurate translation I chose to unpack the concept, i.e., instead of saying “is

to stand in a relation in which it is a non-use-value” I named this relation and said: “is to be a non-use-value for its owner.” It is significant that Marx specifies here “a certain amount” (quantum). Because by assumption, the object of utility as such is useful, but its owner has too much of it.

But this condition only makes the development of the commodity possible. A second condition is necessary before this potential can be actualized. Before formulating this condition, Marx makes a short digression into some very general underlying facts:

Things are in and for themselves external to man, and therefore separable from him. In order that this separation may be reciprocal, it is only necessary that humans tacitly treat each other as the private owners of these separable things and, by this very act, confront each other as independent persons.

Dinge sind an und für sich dem Menschen äußerlich und daher veräußerlich. Damit diese Veräußerung wechselseitig, brauchen Menschen nur stillschweigend sich als Privateigentümer jener veräußerlichen Dinge und eben dadurch als voneinander unabhängige Personen gegenüberzutreten.

The word “tacit” is explained in *Notes on Wagner*, p. [mecw24]553:4–554:1. The mutual recognition as commodity owners does not have to precede the exchange but comes with the exchange. (By contrast, marriage does not come with having sex but for many years was required to precede the sex act.) A similar use of the phrase “tacitly recognize” also in the *Critique of the Gotha Programme*, [mecw].

From this very general truth follows the second condition for the development of commodity production: Since humans are not Robinsons but very social animals, this mutual independence can only be a social product. In human pre-history, individuals have this degree of independence only if they belong to different tribes:

But this relationship of reciprocal isolation and foreignness does not exist for the members of a primitive community of natural origin, whether it takes the form of a patriarchal family, an ancient Indian commune or an Inca state. The exchange of commodities begins where communities have their boundaries, at their points of contact with other communities, or with members of the latter. However, as soon as products have become commodities in the external relations of a community, they also, by reaction, become commodities in the internal life of the community. Their quantitative exchange-relation is at first determined purely by chance. They become exchangeable through the mutual desire of their owners to alienate them.

Solch ein Verhältnis wechselseitiger Fremdheit existiert jedoch nicht für die Glieder eines naturwüchsigen Gemeinwesens, habe es nun die Form einer patriarchalischen Familie, einer altindischen Gemeinde, eines Inkastaates usw. Der Warenaustausch beginnt, wo die Gemeinwesen enden, an den Punkten ihres Kontakts mit fremden Gemeinwesen oder Gliedern fremder Gemeinwesen. Sobald Dinge aber einmal im auswärtigen, werden sie auch rückschlagend im innern Gemeinleben zu Waren. Ihr quantitatives Austauschverhältnis ist zunächst ganz zufällig. Austauschbar sind sie durch den Willensakt ihrer Besitzer, sie wechselseitig zu veräußern.

To sum up: The immediate product exchange is a mutual giving away of products based on the mutual desire of their owners to exchange them. This possibility always exists, because things are external to man and can therefore be given away. But also a set of other conditions must be satisfied.

1. The individuals who make this trade must have no need for the use-values of their own things. This is not the only situation in which people trade use-values but it is the “first modality.”
2. The two traders must have authority to dispose over these things and to transfer ownership. Today this looks as follows: If P receives commodity B from Q in exchange for his commodity A , and later it turns out that Q was not the owner of commodity B , then P does not own B either. People cannot transfer ownership of things they do not own. In the ancient tribal situation, the traders receive this authority not from some

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set of codified property laws, but they must recognize each other as the private owners of these things.

In this immediate product-exchange, the quantitative exchange-proportion is accidental. Not only is the deviation of prices from values accidental, as in the fully developed circulation, but the magnitude of the full price is accidental. The proportions in which the two exchangers agree to exchange their things can be anything; there is no force or “dull compulsion” to do it proportionally to labor-time or whatever.

Question 463 *What is the difference between the exchange of products and the exchange of commodities? Why does the exchange of products usually involve surplus-products, and why does it first take place between members of different communities?* 2012fa, 2011fa, 2008SP, 1995ut, 1995WI.

Next Marx describes the process by which the immediate exchange of *products* becomes exchange of *commodities*.

In the meantime, the need for others' objects of utility gradually establishes itself. The constant repetition of exchange makes it a normal social process. In the course of time, therefore, at least some part of the products must be produced intentionally for the purpose of exchange. From that moment the distinction between the usefulness of things for direct consumption and their usefulness in exchange becomes firmly established. Their use-value becomes distinguished from their exchange-value. On the other hand, the quantitative proportion in which the things are exchangeable becomes dependent on their production itself. Custom fixes their values at definite magnitudes.

Indes setzt sich das Bedürfnis für fremde Gebrauchsgegenstände allmählich fest. Die beständige Wiederholung des Austausches macht ihn zu einem regelmäßigen gesellschaftlichen Prozeß. Im Laufe der Zeit muß daher wenigstens ein Teil der Arbeitsprodukte absichtlich zum Behuf des Austausches produziert werden. Von diesem Augenblick befestigt sich einerseits die Scheidung zwischen der Nützlichkeit der Dinge für den unmittelbaren Bedarf und ihrer Nützlichkeit zum Austausch. Ihr Gebrauchswert scheidet sich von ihrem Tauschwerte. Andererseits wird das quantitative Verhältnis, worin sie sich austauschen, von ihrer Produktion selbst abhängig. Die Gewohnheit fixiert sie als Wertgrößen.

Transition to *commodities*. Now the commodity-owners do not merely exchange surplus products, but produce things for exchange and depend on the products they get in return for them. The commodities are socially related even before the exchange takes place. Already the labors going into these products stand in relation to each other, they form a general system of division of labor. And the quantitative proportions are no longer subject to the will of the exchangers but depend on the market. If the products are commodities, the direct exchange is no longer adequate for them.

After the development of commodity production, now the development of the exchange:

98:2/o In the direct barter of products, each commodity is a direct means of exchange to its owner, and an equivalent to those who do not possess it, although only in so far as it has use-value for them. At this stage, therefore, the articles exchanged do not acquire a value form independent of their own use-value, or of the individual

103:1/o Im unmittelbaren Produktaustausch ist jede Ware unmittelbar Tauschmittel für ihren Besitzer, Äquivalent für ihren Nichtbesitzer, jedoch nur soweit sie Gebrauchswert für ihn. Der Tauschartikel erhält also noch keine von seinem eignen Gebrauchswert oder dem individuellen Bedürfnis der Austauscher unabhängige Wert-

needs of the exchangers. The need for this form first develops with the increase in the number and variety of the commodities entering into the process of exchange.

form. Die Notwendigkeit dieser Form entwickelt sich mit der wachsenden Anzahl und Mannigfaltigkeit der in den Austauschprozeß eintretenden Waren.

One facet of the problem is discussed concretely in *Grundrisse*. In the direct barter of the products, the product serves for the producer as a means of exchange. This can no longer be the case if these products are fully grown-up commodities, since the division of labor is so deep and the use-values become so differentiated that it becomes less and less likely that the double coincidence of use-values occurs.

The further the division of labor develops, the more the product ceases to be means of exchange. The necessity arises for a general means of exchange, which is independent of the specific production of each individual. If production is aimed at the immediate subsistence, then not *each* article can be exchanged against *each* other one; a specific activity can be exchanged only against *specific* products. The more the products becomes particular, manifold, dependent on each other, the more a general means of exchange becomes necessary. (*Grundrisse* 134:1).

At the same time that this problem arises, also the means of its solution come into existence. How? With the development of commodity production spontaneously leads to it that, for some of the central articles of trade, the Simple form of value develops into the Expanded form of value:

The problem and the means for its solution arise simultaneously. Commercial intercourse in which the commodity owners exchange and compare their own articles with various other articles never takes place without different kinds of commodities, that belong to different owners, being exchanged for, and equated as values with, one single further kind of commodity. This further commodity, by becoming the equivalent of various other commodities, directly acquires the form of a General or social equivalent, if only within narrow limits.

Die Aufgabe entspringt gleichzeitig mit den Mitteln ihrer Lösung. Ein Verkehr, worin Warenbesitzer ihre eignen Artikel mit verschiedenen andren Artikeln austauschen und vergleichen, findet niemals statt, ohne daß verschiedene Waren von verschiedenen Warenbesitzern innerhalb ihres Verkehrs mit einer und derselben dritten Warenart ausgetauscht und als Werte verglichen werden. Solche dritte Ware, indem sie Äquivalent für verschiedene andre Waren wird, erhält unmittelbar, wenn auch in engen Grenzen, allgemeine oder gesellschaftliche Äquivalentform.

This "further" commodity is often one of the central commodities (cattle), and since there is so much of it and everybody needs it, it naturally acquires the expanded relative form in the hands of those who produce it. As the need for a General equivalent becomes more and more acute, these commodities are then the logical candidates.

Next Marx discusses the transition from the General equivalent to the Money form. There are two kinds of use-values which initially served as money:

The General equivalent form comes and goes with the momentary social contacts which call it into existence. It is transiently attached to this or that commodity in alternation. But with the development of ex-

Diese allgemeine Äquivalentform entsteht und vergeht mit dem augenblicklichen gesellschaftlichen Kontakt, der sie ins Leben rief. Abwechselnd und flüchtig kommt sie dieser oder jener Ware zu. Mit der Entwick-

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change it fixes itself firmly and exclusively onto particular kinds of commodity, i.e. it crystallizes out into the money-form.

↓ Now the question: which use-value is chosen to be the money commodity?

The particular kind of commodity to which it sticks is at first a matter of accident. Nevertheless there are two circumstances which are by and large decisive. The money-form comes to be attached either to the most important articles of exchange from outside, which are in fact the most naturally arising forms of manifestation of the exchange-value of local products, or to the object of utility which forms the chief element of indigenous alienable wealth, for example cattle. Nomadic peoples are the first to develop the money-form, because all their worldly possessions are in a movable and therefore directly alienable form, and because their mode of life, by continually bringing them into contact with foreign communities, encourages the exchange of products. Men have often made man himself into the primitive material of money, in the shape of the slave, but they have never done this with the land and soil. Such an idea could only arise in a bourgeois society, and one which was already well developed. It dates from the last third of the seventeenth century, and the first attempt to implement the idea on a national scale was made a century later, during the French bourgeois revolution.

lung des Warenaustausches heftet sie sich aber ausschließlich fest an besondere Warenarten oder kristallisiert zur Geldform.

An welcher Warenart sie kleben bleibt, ist zunächst zufällig. Jedoch entscheiden im großen und ganzen zwei Umstände. Geldform heftet sich entweder an die wichtigsten Eintauchartikel aus der Fremde, welche in der Tat naturwüchsige Erscheinungsformen des Tauscherts der einheimischen Produkte sind, oder an den Gebrauchsgegenstand, welcher das Hauptelement des einheimischen veräußerlichen Besitztums bildet, wie z.B. Vieh. Nomadenvölker entwickeln zuerst die Geldform, weil all ihr Hab und Gut sich in beweglicher, daher unmittelbar veräußerlicher Form befindet, und weil ihre Lebensweise sie beständig mit fremden Gemeinwesen in Kontakt bringt, daher zum Produktaustausch sollizitiert. Die Menschen haben oft den Menschen selbst in der Gestalt des Sklaven zum ursprünglichen Geldmaterial gemacht, aber niemals den Grund und Boden. Solche Idee konnte nur in bereits ausgebildeter bürgerlicher Gesellschaft aufkommen. Sie datiert vom letzten Drittel des 17. Jahrhunderts, und ihre Ausführung, auf nationalem Maßstab, wurde erst ein Jahrhundert später in der bürgerlichen Revolution der Franzosen versucht.

Question 467 *Why could the idea to use land as money arise only when capitalism was already developed?* 2013fa, 2011fa, 2008SP, 1998WI, 1996sp, 1995WI.

Marx does not explain why the main articles do not remain general equivalents: because then their production would not be regulated by the market, since the equivalent form does not have quantitative determination.

But in the end, that commodity becomes money whose use-value best allows it to be the independent incarnation of value, i.e., whose physical properties fitted best for the *functions* of money.

99:1 In the same proportion as exchange bursts its local bonds, and the value of commodities accordingly expands more and more into the material embodiment of human labor as such, in that proportion does the money-form become transferred to com-

104:1 In demselben Verhältnis, worin der Warenaustausch seine nur lokalen Bande sprengt, der Warenwert sich daher zur Materiatur menschlicher Arbeit überhaupt ausweitet, geht die Geldform auf Waren über, die von Natur zur gesellschaftlichen Funk-

modities which are by nature fitted to perform the social function of a General equivalent. These commodities are the precious metals.

100:1 The truth of the statement that ‘although gold and silver are not by nature money, money is by nature gold and silver’,⁴² is shown by the congruence between the natural properties of gold and silver and the functions of money.⁴³

After a reference to *Contribution*, Footnote 42 brings a Galiani quote which Marx had to reverse to make it true:

⁴² Karl Marx, op. cit., p. 387:1. ‘The metals ... are by their nature money’. Galiani [Gal03, t. III, p. 137]

Marx would say instead: money is by nature gold and silver.

⁴³ For further details on this subject see the chapter on ‘The Precious Metals’ in my work cited above.

↑ The reference is 385:1.

For now we only know one function of money, namely, to serve as the form of appearance of the value of commodities, i.e., as the material in which the magnitudes of their values are socially expressed. Only a material whose every sample possesses the same uniform quality can be an adequate form of appearance of value, that is a material embodiment of abstract and therefore equal human labor. On the other hand, since the difference between the magnitudes of value is purely quantitative, the money commodity must be capable of purely quantitative differentiation, it must therefore be divisible at will, and it must also be possible to assemble it again from its component parts. Gold and silver possess these properties by nature.

tion eines allgemeinen Äquivalents taugen, auf die edlen Metalle.

104:2 Daß nun, „obgleich Gold und Silber nicht von Natur Geld, Geld von Natur Gold und Silber ist“,⁴² zeigt die Kongruenz ihrer Natureigenschaften mit seinen Funktionen.⁴³

⁴² Karl Marx, l.c. p. 387:1. „Die Metalle ... sind von Natur Geld.“ Galiani [Gal03, t. III, p. 137]

⁴³ Das Nähere darüber in meiner eben zitierten Schrift, Abschnitt: „Die edlen Metalle“.

Bisher kennen wir aber nur die eine Funktion des Geldes, als Erscheinungsform des Warenwerts zu dienen oder als das Material, worin die Wertgrößen der Waren sich gesellschaftlich ausdrücken. Adäquate Erscheinungsform von Wert oder Materialur abstrakter und daher gleicher menschlicher Arbeit kann nur eine Materie sein, deren sämtliche Exemplare dieselbe gleichförmige Qualität besitzen. Andererseits, da der Unterschied der Wertgrößen rein quantitativ ist, muß die Geldware rein quantitativer Unterschiede fähig, also nach Willkür teilbar und aus ihren Teilen wieder zusammensetzbar sein. Gold und Silber besitzen aber diese Eigenschaften von Natur.

Question 468 *One important property of gold is also that it does not deteriorate over time, it does not rust etc. Is this a reflection of the fact that value itself does not deteriorate over time?* 2008SP.

Question 469 *Explain in your own words the meaning of Marx’s statement: “Although gold and silver are not by nature money, money is by nature gold and silver.”* 2011fa, 2008SP, 2007SP, 2005fa, 2004fa, 2003fa, 1997ut, 1997sp, 1997WI, 1996sp, 1995ut, 1995WI.

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Question 470 *In a modern society, would use-values other than gold be possible candidates for a money commodity?* 2013fa.

Question 471 *Shouldn't the explanation why gold is the money commodity be in chapter Three instead of chapter Two?*

Question 472 *Is there also a congruence between the properties of gold and the other functions of money discussed in chapter Three?*

The development of the forms of value look, from the side of the money commodity, like a development of a new use-value:

100:2 The money commodity acquires a dual use-value. Alongside its particular use-value as a commodity (gold, for instance, serves to fill hollow teeth, forms the raw material for luxury articles, etc.) it acquires a formal use-value, arising out of its specific social function.

100:3 Since all other commodities are merely particular equivalents for money, the latter being their universal equivalent, they relate to money as particular commodities relate to the universal commodity.⁴⁴

⁴⁴ 'Money is the universal commodity' Verri, [Ver04, p. 16].

104:3 Der Gebrauchswert der Geldware verdoppelt sich. Neben ihrem besondern Gebrauchswert als Ware, wie Gold z.B. zum Ausstopfen hohler Zähne, Rohmaterial von Luxusartikeln usw. dient, erhält sie einen formalen Gebrauchswert, der aus ihren spezifischen gesellschaftlichen Funktionen entspringt.

104:4 Da alle andren Waren nur besondre Äquivalente des Geldes, das Geld ihr allgemeines Äquivalent, verhalten sie sich als besondre Waren zum Geld als der allgemeinen Ware.⁴⁴

⁴⁴ „Das Geld ist die allgemeine Ware.“ Verri, [Ver04, p. 16]

2.4. [Ideologies of Money and its Fetish-Like Character]

The last three paragraphs of chapter Two form a unit, whose secret organizing principle is a discussion of quality, quantity, and form.

Marx discusses here some misconceptions about money, documenting the wrong and right things written about them, their causes, and their kernels of truth. These are good examples of immanent critique. As in some other instances, Marx does not give indication to the reader that he is going to discuss these misconceptions now, but simply plunges into the discussion. Marx converses with the reader in such a way as if the reader knew which question was being answered.

2.4.a. [First Misconception: Money is Not a Commodity]

100:4/oo We have seen that the Money form is only the reflection, attached to one particular commodity, of the relationships of all other commodities.

↑ Marx means here the Money form of value discussed in subsection 1.3.D, not the money form or the price of a commodity. Commodity *G* becomes money by the joint action of

105:1/o Man hat gesehn, daß die Geldform nur der an einer Ware festhaftende Reflex der Beziehungen aller andren Waren.

all other commodities, by a social agreement which decides that every other commodity should express its value in *G*. Coming from a relationship between commodities, money is only a commodity to which other commodities relate in a specific way. Commodities must express their values in the use-values of other commodities. That is so-to-say in their genes (because they are produced privately, and because this expression of their values is the social validation of the labor inside them as socially necessary. The only thing which makes their relationship to money special is the “deed,” the agreement that they all should express their values in the same commodity *G*.

The background question Marx is addressing here (without explicitly announcing it to the reader) is: to what extent is the function of money based on a social agreement? Marx concedes that yes, a social agreement is involved, but this social agreement does not say, let’s all act as if the thing that circulates as money had value. Rather, this social agreement *only* consists in the selection of a specific kind of commodity to which a value form is to be permanently attached namely, the General equivalent form. In principle, any commodity can have this form, but by its nature, this form needs to become the specialty of one specific commodity. 81:1 is important here; this is the bridge to the next sentence following below. (Marx is acutely aware of what can and what cannot be decided by social agreement. It cannot be decided by a social agreement that everyone should accept an intrinsically valueless money in exchange for their valuable commodities. These kinds of decision must remain based on competition. But it can be decided by social agreement which use-value everyone uses as general equivalent.)

Since commodities can express their values only in something that has value itself (because only in this way can the other commodities say that they have as much value as this thing there), Marx continues:

That money is a commodity⁴⁵ is therefore a discovery only for those who proceed from its finished shape in order to analyze it afterwards.

Daß Geld Ware ist,⁴⁵ ist also nur eine Entdeckung für den, der von seiner fertigen Gestalt ausgeht, um sie hinterher zu analysieren.

The Moore-Aveling translation

omits the “*fertig*.”

In other words, only those people are surprised that money is a commodity who ask: “What is money?” Marx asks instead: “How can commodities express their values?” In the analysis tracing the development of money it is clear from the beginning that money must be a commodity.

⁴⁵ ‘Silver and gold themselves, which we may call by the general name of Bullion, are . . . commodities . . . rising and falling in . . . value . . . Bullion then may be reckoned to be of higher value, where the smaller weight will purchase the greater quantity of the product or manufacture of the country etc.’ (S. Clement, A Discourse of the General Notions of Money, Trade, and Exchange, as They Stand in Relations to Each Other. By a Merchant, London 1695, p. 7). ‘Silver and gold, coined or uncoined, tho’ they are used for a measure of all other things, are no less a commodity than wine, oyl, tobacco cloth or stuffs’ (J. Child, A Discourse Concerning Trade,

⁴⁵ „Silber und Gold an sich, die wir mit dem allgemeinen Namen Edelmetall bezeichnen können, sind im . . . Werte . . . steigende und fallende . . . Waren . . . Dem Edelmetall kann man dann einen höheren Wert zuerkennen, wenn ein geringeres Gewicht davon eine größere Menge des Produkts oder Fabrikats des Landes etc. kauft.“ ([S. Clement,] „A Discourse of the General Notions of Money, Trade, and Exchange, as they stand in relations to each other. By a Merchant“, Lond. 1695, p. 7.) „Silber und Gold, gemünzt oder ungemünzt, werden zwar als Maßstab für alle anderen Dinge gebraucht, sind aber nicht weniger eine Ware als Wein, Öl, Tabak,

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and That in Particular of the East-Indies etc., London, 1689, p. 2). ‘The stock and riches of the kingdom cannot properly be confined to money, nor ought gold and silver to be excluded from being merchandize’ (T. Papillon, The East-India Trade a Most Profitable Trade, London, 1677, p. 4).

Tuch oder Stoffe.“ ([J. Child,] „A Discourse concerning Trade, and that in particular of the East Indies etc.“, London 1689, p. 2.) Vermögen und Reichtum des Königreiches können genau genommen nicht auf Geld beschränkt, noch können Gold und Silber als Waren ausgeschlossen werden. ([Th. Papillon.] „The East India Trade a most Profitable Trade“, London 1677, p. 4.)

2.4.b. [Second Misconception: The Value of Money is Imaginary]

Second misconception: the value of money is imaginary, i.e., money itself does not have value but its value comes from social agreement. This misconception arises because gold gets its specific form of value from a different place than where it gets its value.

The exchange process gives to the commodity which it has designated as money not its value but its specific value form.

Der Austauschprozeß gibt der Ware, die er in Geld verwandelt, nicht ihren Wert, sondern ihre spezifische Wertform.

Moore-Aveling says: “The act of exchange gives to the commodity converted into money, not its value but its specific value form.” This misleads the reader into thinking

that Marx talks about the exchange of commodities for money. Fowkes has it better: “The process of exchange gives to the commodity which it has converted

into money not its value but its specific form of value.” Even this is understandable, therefore I wrote “which it has designated as money.”

Exam Question 475 Marx writes: “The exchange process gives the commodity which it has designated as money not its value, but its specific value form.” Which value form does Marx mean here? Why does Marx call this form the specific value form of the money commodity? (Assume we are under the gold standard.) [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008SP](#), [2007SP](#), [2004fa](#), [2003fa](#), [2002fa](#), [1999SP](#), [1998WI](#), [1997ut](#), [1997WI](#), [1996sp](#), [1995WI](#).

Through the exchange process, one commodity is selected as the General equivalent. This selection process does not give the General equivalent its value but gives it a “specific” form of value, i.e., a form of value which, from then on, will be associated with that use-value alone.

Confusion between these two attributes has misled some writers into maintaining that the value of gold and silver is imaginary.⁴⁶

Die Verwechslung beider Bestimmungen verleitete dazu, den Wert von Gold und Silber für imaginär zu halten.⁴⁶

In the footnote, Galiani got it right, Locke was wrong, and Law gave a correct criticism of Locke, but where Law tried to develop his own theory, he did not get it entirely right either:

⁴⁶ ‘Gold and silver have value as metals before they are money’ Galiani, [Gal03, p. 72]. Locke says, ‘The universal consent of mankind gave to silver, on account of its qualities which made it suitable for money, an imaginary value’ [John Locke, [Loc77, p. 15].] Law retorts ‘How could different nations give an imaginary value to any single thing ... or how could this imaginary value have maintained itself?’ But he himself understood very little of the matter, for example ‘Silver

⁴⁶ „Gold und Silber haben Wert als Metalle, bevor sie Geld sind.“ Galiani, [Gal03, p. 72]. Locke sagt: „Die allgemeine Übereinstimmung der Menschen legte dem Silber, wegen seiner Qualitäten, die es zum Geld geeignet machten, einen imaginären Wert bei.“ [John Locke, [Loc77, p. 15].] Dagegen Law: „Wie könnten verschiedene Nationen irgendeiner Sache einen imaginären Wert geben ... oder wie hätte sich dieser imaginäre Wert erhalten können?“ Wie

was exchanged in proportion to the use-value it possessed, consequently in proportion to its real value. By its adoption as money it received an additional value (*une valeur additionnelle*). Jean Law, [Law43, pp. 469–70].

wenig er selbst aber von der Sache verstand: „Das Silber tauschte sich aus nach dem Gebrauchswert, den es hatte, also nach seinem wirklichen Wert; durch seine Bestimmung als Geld erhielt es einen zuschüssigen Wert (*une valeur additionnelle*).“ Jean Law, [Law43, p. 469, 470].

It cannot be decided by a social agreement how much value a commodity has, but it can be decided by social agreement which use-value everyone uses as general equivalent.

2.4.c. [Third Misconception: Money is Merely a Symbol]

Third misconception: money is merely a symbol. Again Marx takes pains to explain how this misconception could arise.

The fact that money can, in certain functions, be replaced by mere symbols of itself, gave rise to another mistaken notion, that it is itself a mere symbol.

Weil Geld in bestimmten Funktionen durch bloße Zeichen seiner selbst ersetzt werden kann, entsprang der andre Irrtum, es sei ein bloßes Zeichen.

A wedding ring is a symbol: it symbolizes a relation which exists independently of it. Gold coin, on the other hand, does not *symbolize* value, it *is* value.

Nevertheless, this error did contain the hunch that the money-form of the thing is external to the thing itself, being simply the form of appearance of human relations hidden behind it. In this sense every commodity is a symbol, since, as value, it is only the material shell of the human labor expended on it.⁴⁷

Andrerseits lag darin die Ahnung, daß die Geldform des Dings ihm selbst äußerlich und bloße Erscheinungsform dahinter versteckter menschlicher Verhältnisse. In diesem Sinn wäre jede Ware ein Zeichen, weil als Wert nur sachliche Hülle der auf sie verausgabten menschlichen Arbeit.⁴⁷

Money is not a symbol. It is true that money is only the materialized form of a social relation; but this does not license us to forget that this social relation has a materialized form.

Imagine you are standing in a boat in New York Harbor close to the Statue of Liberty and just making some photos of it when it creaks, and a big part of the statue crashes into the water barely missing you. You cannot argue: the collapse of the statue could not have hurt you, because the statue is only the symbolic expression of one of the principles on which our government is based. Yes it is the expression of an idea, but the near-miss is a reminder that it is a very material expression of that idea.

The footnote starts with a few quotes: from wrong (Forbonnais, Montesquieu) to right (Le Trosne) to lucid (Hegel):

⁴⁷ ‘Money is their (the commodities’) symbol’ (V. de Forbonnais, *Éléments du commerce*, new edn, Leyden, 1776, Vol. 2, p. 143). ‘As a symbol it is attracted by the commodities’ (ibid. p. 155). ‘Money is a symbol of a thing and represents it’ (Montesquieu, [Mon69, p. 3, vol. 2]). ‘Money is not a mere symbol, for it is itself wealth; it does not represent the values, it is their equivalent’ (Le Trosne, [LT46, p. 910]). ‘If we consider the concept of value, we must look on the thing itself

⁴⁷ „Das Geld ist ihr“ (der Waren) „Zeichen.“ (V. de Forbonnais, *„Éléments du Commerce“*, Nouv. Édit. Leyde 1766, t. II, p. 143.) „Als Zeichen wird es von den Waren angezogen.“ (l.c. p. 155.) „Das Geld ist Zeichen für eine Sache und vertritt sie.“ Montesquieu, [Mon69, p. 3, t. II]. „Das Geld ist nicht bloßes Zeichen, denn es ist selbst Reichtum; es vertritt nicht die Werte, es ist ihr Äquivalent.“ Le Trosne, [LT46, p. 910]. „Betrachtet man den Begriff des Werts, so wird die

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only as a symbol; it counts not as itself, but as what it is worth' (Hegel, [Heg40, p. 100]).

Sache selbst nur als ein Zeichen angesehen, und sie gilt nicht als sie selber, sondern als was sie wert ist.“ Hegel [Heg40, p. 100].

In the rest of the footnote, Marx describes historical situations in which this false theory was a handy excuse for the enrichment of the king.

^{47 ctd} Long before the economists, it was the lawyers who made fashionable the idea that money is a mere symbol, and that the value of the precious metals is purely imaginary. This they did in the sycophantic service of the royal power, supporting the right of the latter to debase the coinage, during the whole of the Middle Ages, by the traditions of the Roman Empire and the conceptions of money to be found in the Digest. 'Let no one call into question,' says their apt pupil, Philip of Valois, in a decree of 1346, 'that the trade, the composition, the supply, and the power of issuing ordinances on the currency ... belongs exclusively to us and to our royal majesty, to fix such a rate and at such a price as it shall please us and seem good to us.' It was a maxim of Roman Law that the value of money was fixed by Imperial decree. It was expressly forbidden to treat money as a commodity. 'However, it shall not be lawful for anyone to buy money, for, as it was created for public use, it is not permissible for it to be a commodity'. There is a good discussion of this by G. F. Pagnini, in *Saggio sopra il giusto pregio delle cose*, 1751, printed in Custodi's collection, *Parte moderna*, Vol. 2. In the second part of his work Pagnini directs his polemic especially against the legal gentlemen.

^{47 ctd} Lange vor den Ökonomen brachten die Juristen die Vorstellung von Geld als bloßem Zeichen und dem nur imaginären Wert der edlen Metalle in Schwung, im Sykophantendienst der königlichen Gewalt, deren Münzverfälschungsrecht sie das ganze Mittelalter hindurch auf die Traditionen des römischen Kaiserreichs und die Geldbegriffe der Pandekten stützten. „Niemand kann und darf Zweifel hegen“, sagt ihr gelehriger Schüler, Philipp von Valois, in einem Dekret von 1346, „daß nur Uns und Unserer königlichen Majestät zukommt ... das Münzgeschäft, die Herstellung, die Beschaffenheit, der Vorrat und alle die Münzen betreffenden Verordnungen, sie so und zu solchem Preis in Umlauf zu setzen, wie es Uns gefällt und gutdünkt.“ Es war römisches Rechtsdogma, daß der Kaiser den Geldwert dekretiert. Es war ausdrücklich verboten, das Geld als Ware zu behandeln. Geld jedoch zu kaufen soll niemand gestattet sein, denn zum allgemeinen Gebrauch geschaffen, darf es nicht Ware sein. Gute Auseinandersetzung hierüber von G. F. Pagnini, „Saggio sopra il giusto pregio delle cose“, 1751, bei Custodi, *Parte Moderna*, t. II. Namentlich im zweiten Teil der Schrift polemisiert Pagnini gegen die Herren Juristen.

2.4.d. [Fourth Misconception: Money is an Arbitrary Product of Human Reflection]

Fourth misconception: money is an arbitrary product of human reflection.

By declaring that the social characteristics which material objects obtain on the basis of a specific mode of production, or that the material characteristics which the social determinations of labor obtain, are mere symbols, one declares them at the same time to be deliberate products of human reflection. This was the kind of explanation favored by the eighteenth century: in this way the Enlightenment endeavoured, at least for the time being, to remove the semblance of strangeness from the mysterious shapes

Indem man aber die gesellschaftlichen Charaktere, welche Sachen, oder die sachlichen Charaktere, welche gesellschaftliche Bestimmungen der Arbeit auf Grundlage einer bestimmten Produktionsweise erhalten, für bloße Zeichen, erklärt man sie zugleich für willkürliches Reflexionsprodukt der Menschen. Es war dies beliebte Aufklärungsmanier des 18. Jahrhunderts, um den rätselhaften Gestalten menschlicher Verhältnisse, deren Entstehungsprozeß man noch nicht entziffern konnte, wenigstens vorläufig den

assumed by human relations whose origins one was as yet unable to decipher.

Schein der Fremdheit abzustreifen.

The error of declaring social relations as arbitrary products of human reflection is called “voluntarism.” The effect of this explanation is that the relations no longer seem unfamiliar—at least initially, until one has noticed that this explanation is not satisfactory.

After quality of value, the second of the three concluding paragraphs of chapter Two discusses the quantity. First: how does the quantity of value of money express itself in circulation? Marx ties here into 66:2.

102:1 It has already been remarked earlier that the equivalent form of a commodity does not include a determination of the magnitude of its value. Therefore, even if we know that gold is money, and consequently directly exchangeable with all other commodities, this still does not tell us how much 10 lb. of gold is worth. Money, like every other commodity, can express the magnitude of its value only relatively, in other commodities. Its value is determined by the labor-time required for its production, and is expressed in the quantity of every other commodity in which the same amount of labor-time is congealed.⁴⁸ Its relative value is therefore established at the source of its production, where it is engaged in immediate barter. As soon as it enters into circulation as money, its value is already given.

106:1/o Es ward vorhin bemerkt, daß die Äquivalentform einer Ware die quantitative Bestimmung ihrer Wertgröße nicht einschließt. Weiß man, daß Gold Geld, daher mit allen andren Waren unmittelbar austauschbar ist, so weiß man deswegen nicht, wieviel z.B. 10 Pfund Gold wert sind. Wie jede Ware kann das Geld seine eigene Wertgröße nur relativ in andren Waren ausdrücken. Sein eigner Wert ist bestimmt durch die zu seiner Produktion erheischte Arbeitszeit und drückt sich in dem Quantum jeder andren Ware aus, worin gleichviel Arbeitszeit geronnen ist.⁴⁸ Diese Festsetzung seiner relativen Wertgröße findet statt an seiner Produktionsquelle in unmittelbarem Tauschhandel. Sobald es als Geld in die Zirkulation eintritt, ist sein Wert bereits gegeben.

↑ The last two sentences will be elaborated in 127:2b/o

If one therefore looks at circulation only, one does not see how the price level is determined. Marx could bring lots of quotes here about the quantity theory of money. Instead he only brings the quote of someone who sees it right:

⁴⁸ ‘If a man can bring to London an ounce of silver out of the Earth of Peru, in the same time that he can produce a bushel of corn, then the one is the natural price of the other: now, if by reason of new or more easie mines a man can procure two ounces of silver as easily as he formerly did one, the corn will be as cheap at ten shillings the bushel as it was before at five shillings, caeteris paribus’ William Petty [Pet67, p. 31].

⁴⁸ „Wenn jemand eine Unze Silber aus dem Innern der Erde Perus in derselben Zeit nach London bringen kann, die er zur Produktion eines Bushel Korn brauchen würde, dann ist das eine der natürliche Preis des anderen; wenn er nun durch Abbau neuer und ergiebigerer Bergwerke statt der einen zwei Unzen Silber mit dem gleichen Aufwand gewinnen kann, wird das Korn bei einem Preis von 10 Shilling pro Bushel ebenso billig sein wie vorher bei einem Preis von 5 Shilling, caeteris paribus“ William Petty [Pet67, p. 31].

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2.4.e. [Fifth Misconception: Money is just an Ordinary Commodity]

All previous misconceptions could be cleared up by emphasizing that money is a commodity. But this is not enough to understand money. An additional misconception about money, the fifth, is the failure to identify that what distinguishes money from the other commodities.

In the last decades of the seventeenth century the first step in the analysis of money, the discovery that money is a commodity, had long been taken; but this was merely the first step, and nothing more. The difficulty lies not in comprehending that money is a commodity, but in discovering how, why and through what a commodity is money.⁴⁹

Wenn es schon in den letzten Dezennien des 17. Jahrhunderts weit überschrittner Anfang der Geldanalyse, zu wissen, daß Geld Ware ist, so aber auch nur der Anfang. Die Schwierigkeit liegt nicht darin zu begreifen, daß Geld Ware, sondern wie, warum, wodurch Ware Geld ist.⁴⁹

Fowkes's translation: "how, why and by what means a commodity becomes money" misses the whole point: the emphasis is not that it

becomes money but that it already is money. Also the word "means" is misleading, since a commodity does not need an (external) means

to become money, but it has inner money traits.

This echoes Marx's emphasis on the genesis of money out of the commodity in 57:3/o. Presumably, by "commodity being money" Marx means that every commodity is a sign just as money is a sign.

Question 478 *How, why, and through what is a commodity already money, as Marx says in 186:1?* 2010fa, 2008SP, 2007SP, 1999SP, 1995ut.

⁴⁹ The learned Professor Roscher, after first informing us that 'the false definitions of money may be divided into two main groups: those which make it more, and those which make it less, than a commodity', gives us a motley catalogue of works on the nature of money, which does not provide even the glimmer of an insight into the real history of the theory. He then draws this moral: 'For the rest, it is not to be denied that most of the later economists do not bear sufficiently in mind the peculiarities that distinguish money from other commodities' (it is then, after all, either more or less than a commodity!) ... 'So far, the semi-mercantilist reaction of Ganilh is not altogether without foundation' (Wilhelm Roscher, *Die Grundlagen der Nationalökonomie*, 3rd edn, 1858, pp. 207–10). More! Less! Not sufficiently! So far! Not altogether! What a way of determining one's concepts! And this eclectic professorial twaddle is modestly baptized by Herr Roscher 'the anatomico-physiological method' of political economy! However, he does deserve credit for one discovery, namely, that money is 'a pleasant commodity'.

⁴⁹ Nachdem Herr Professor Roscher uns belehrt: „Die falschen Definitionen von Geld lassen sich in zwei Hauptgruppen teilen: solche, die es für mehr, und solche, die es für weniger halten als eine Ware“, folgt ein kunterbunter Katalog von Schriften über das Geldwesen, wodurch auch nicht die entfernteste Einsicht in die wirkliche Geschichte der Theorie durchschimmert, und dann die Moral: „Zu leugnen ist übrigens nicht, daß die meisten neueren Nationalökonomien die Eigentümlichkeiten, welche das Geld von andren Waren unterscheiden“ (also doch mehr oder weniger als Ware?), „nicht genug im Auge behalten haben ... Insofern ist die halbmercantilistische Reaktion von Ganilh etc. nicht ganz unbegründet.“ Wilhelm Roscher [Ros58, p. 297–210]. Mehr—weniger—nicht genug—insofern—nicht ganz! Welche Begriffsbestimmungen! Und dergleichen eklektische Professoralfaselei tauft Herr Roscher bescheiden „die anatomisch-physiologische Methode“ der politischen Ökonomie! Eine Entdeckung ist ihm jedoch geschuldet, nämlich, daß Geld „eine angenehme Ware“ ist.

Question 479 Was Roscher in error when he said that money is a pleasant commodity? 2013fa, 2011fa, 2008SP, 2005fa, 2003fa, 1997ut, 1997sp, 1995WI.

Question 480 List and briefly discuss all those theories of money which Marx mentioned on pages 184:3/oo – 186:1 and about which he said they were incorrect. 2012fa, 2008SP, 2003fa, 1998WI.

2.4.f. [Sixth Misconception: Money is Money Outside its Relation to the Ordinary Commodities]

The third paragraph covers the form of value, especially the equivalent form:

103:1 We have already seen, from the simplest expression of value, x commodity $A = y$ commodity B , that the thing in which the magnitude of the value of another thing is represented seems to have the equivalent form independently of this relation, as a social property which it possesses by nature. We followed the process by which this false semblance solidified itself.

107:1/o Wir sahen, wie schon in dem einfachsten Wertausdruck, x Ware $A = y$ Ware B , das Ding, worin die Wertgröße eines andren Dings dargestellt wird, seine Äquivalentform unabhängig von dieser Beziehung als gesellschaftliche Natureigenschaft zu besitzen scheint. Wir verfolgten die Befestigung dieses falschen Scheins.

Fowkes's "We followed the process by which this false semblance became firmly established" sounds as if the process was the one that more and more people believed in this false

semblance. This is a misunderstanding of the text. Moore-Aveling have: "We followed up this false appearance to its final establishment." This leads the possibility open, which I

consider to be the right interpretation, that Marx does not mean the establishment in the minds of the observers, but the establishment as a reality.

↑ Solidification of this false semblance: It is as if not only the observer but the world itself was misled, and therefore the world allowed this false semblance to become reality.

Question 482 Explain in detail how the development described in chapter One, section 3, can be viewed as the "solidification of a false semblance." Is this not a too Hegelian transition, a false semblance, i.e., an idea, becoming reality?

Now the next pronoun, "Er;"

should strictly be "Sie":

This process was completed when the universal equivalent form grew together with the natural form of a particular commodity, and thus crystallized into the money-form. Although a particular commodity only becomes money because all other commodities express their values in it, it seems, on the contrary, that all other commodities universally express their values in a particular commodity because it is money. The movement which mediated this process vanishes

Er ist vollendet, sobald die allgemeine Äquivalentform mit der Naturalform einer besondern Warenart verwachsen oder zur Geldform kristallisiert ist. Eine Ware scheint nicht erst Geld zu werden, weil die andren Waren allseitig ihre Werte in ihr darstellen, sondern sie scheinen umgekehrt allgemein ihre Werte in ihr darzustellen, weil sie Geld ist. Die vermittelnde Bewegung verschwindet in ihrem eignen Resultat und läßt keine Spur zurück. Ohne ihr Zutun fin-

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in its own result, leaving no trace behind. Without having to do anything to achieve it, the commodities find the form of their own value, in its finished shape, in the body of a commodity existing outside and alongside them.

den die Waren ihre eigne Wertgestalt fertig vor als einen außer und neben ihnen existierenden Warenkörper.

2.4.g. [The Fetish-Like Character of Money]

Marx is talking here about Money is so mysterious because the mediating movement has vanished and has left no trace in the result. This physical object, gold or silver in its crude state, becomes, as soon as it emerges from the bowels of the earth, the immediate incarnation of all human labor. Hence the magic of money. The merely atomistic behavior of humans in their social process of production, and hence the fact that their own relations of production take on an objectified form which is beyond their control and independent of their conscious individual striving, manifest themselves at first in the fact that the products of labor generally take the form of commodities. The riddle of the money fetish is therefore merely the riddle of the commodity fetish, which has become visible and is blinding the eyes.

Diese Dinge, Gold und Silber, wie sie aus den Eingeweiden der Erde herauskommen, sind zugleich die unmittelbare Inkarnation aller menschlichen Arbeit. Daher die Magie des Geldes. Das bloß atomistische Verhalten der Menschen in ihrem gesellschaftlichen Produktionsprozeß und daher die von ihrer Kontrolle und ihrem bewußten individuellen Tun unabhängige, sachliche Gestalt ihrer eignen Produktionsverhältnisse erscheinen zunächst darin, daß ihre Arbeitsprodukte allgemein die Form der Ware annehmen. Das Rätsel des Geldfetischs ist daher nur das sichtbar gewordne, die Augen blendende Rätsel des Warenfetischs.

The German says “*Verhalten*,” not “*Verhältnis*,” which can either mean “behavior” or also “way of relating”; Moore-Aveling translate it with “behavior,” while Fowkes writes “are related.” I considered “die sachliche Gestalt

ihrer Produktionsverhältnisse” (literally: objectified form of their own relations of production) to be an abbreviated formulation for: “die Tatsache daß die Produktionsverhältnisse eine sachliche Gestalt annehmen” (the

fact that their own relations of production take on an objectified form), rather than that form itself.

Instead of “dazzling” I translated “*blendend*” with “blinding,” since it does make blind.

Again, as in section 1.4.b, Marx looks for the roots of this fetish-like character in the direct relations of the producers. This is a remarkable passage, because Marx is here quite critical of these producers. He says here explicitly that “the merely atomistic behavior of men in their social process of production” is not a consequence of but in some way prior to the commodity form. Marx seems to blame the fetish-like character of the commodity on the atomistic behavior of the individual producers. However, in the French edition, this criticism of the individual producers is omitted again. In French, the last sentence of chapter Two is: “Hence the magic of money.” The two long sentences after this are missing.

Question 484 *Are people, by their atomistic attitude towards each other, responsible for their lack of control over their own social relations?* 2012fa, 2011fa, 2008SP, 1996sp.

3. Money or the Circulation of Commodities

Why is the topic of this chapter described as money *or* the circulation of commodities? Aren't these two different things? Yes, but they are closely related. Marx calls money the "crystallization" of the form changes of the commodities in circulation. To understand this, remember that the form change has two phases. The commodity that has been produced must realize its value and turn into a use-value that is useful for its producer. I.e., from its original use-value form it has to go into its value-form and then into its final use-value form. But the conversion into its value is its exchange for money. This is why one can say that money is the crystallization of the commodity's value form. In *Contribution*, 323:1, Marx writes:

In the process in which prices are established, the commodities acquire the form in which they are able to circulate, and gold acquires its monetary character.

Nachdem die Ware im Prozeß der Preisgebung ihre zirkulationsfähige Form und das Gold seinen Geldcharakter erhalten hat,

↑ This is a brief summary of chapter Three. The establishment of prices is discussed in section Three of chapter One and then the section about the measure of value. The equivalent form, which serves as mirror for the value of the commodity in the relative value form, sticks to the equivalent commodity (this can already be described by the metaphor "crystallizes out"), and this commodity which has now permanently acquired the right to be in the equivalent form enables the other commodities to circulate and acquires through this circulation process its own additional forms. The establishment of prices has therefore three effects:

- It perfects the measuring of value (this is the first function of money in the logical derivation)
- It provides a form in which commodities can circulate (which will be discussed in the second section),
- it gives money a form in which it can transcend circulation (this will be discussed in the third section).

After this has been accomplished, circulation the same time expresses and resolves the contradictions contained in the exchange process of commodities. The actual exchange of commodities, i.e., the social metabolism, takes place through a form change in which the dual nature of the commodity as use-value and exchange-value unfolds itself, but where the form change on

wird die Zirkulation die Widersprüche, die der Austauschprozeß der Waren einschloß, zugleich darstellen und lösen. Der wirkliche Austausch der Waren, d.h. der gesellschaftliche Stoffwechsel, geht vor in einem Formwechsel, worin sich die Doppelnatur der Ware als Gebrauchswert und Tauschwert entfaltet, ihr eigener Formwechsel sich aber zugleich in bestimmten Formen des Geldes

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the side of the commodity at the same time crystallizes itself in the various determinate forms of money.

kristallisiert.

↑↑ While the commodities themselves change form, i.e., they go through C–M–C, the money on the other pole reflects this process through its determinate forms. Which determinate forms does Marx mean here? presumably measure of value, means of circulation, means of payment, hoard, world money.

The social metabolism, i.e., the migration of the products from the place where they are produced to the place where they are consumed, is compared here with the chemical process of a solution. The products, after being produced, are dissolved into a liquid which then transports them to the spot where they are consumed. Just as a solid dissolved into a liquid under certain circumstances precipitates in the form of crystals, these commodities into the circulation process also crystallize out in the form of money. Elsewhere in *Contribution*, p. 393:1–396:0, Marx uses the formulation

The processing movement of commodities, which springs from the contradiction of exchange-value and use-value contained in them, which is reflected in the circulation of money, and which is crystallized in the various form determinations of money, ...

Die prozessierende Bewegung der Waren, die aus dem in ihnen enthaltenen Gegensatz von Tauschwert und Gebrauchswert entspringt, in dem Umlauf des Geldes erscheint und in den verschiedenen Formbestimmtheiten des letztern sich kristallisiert, ...

And here is a very similar quote from *Contribution* 292:2:

As they develop, the interrelations of commodities crystallize into distinct aspects of the general equivalent, and thus the exchange process becomes at the same time the process of formation of money. This process as a whole, which comprises the carrying out of several processes, constitutes *circulation*.

Die prozessierenden Beziehungen der Waren aufeinander kristallisieren sich als unterschiedene Bestimmungen des allgemeinen Äquivalents, und so ist der Austauschprozeß zugleich Bildungsprozeß des Geldes. Das Ganze dieses Prozesses, der sich als ein Verlauf verschiedener Prozesse darstellt, ist die *Zirkulation*.

Here is a different, unrelated, remark, before going into the chapter itself. Money is for Marx the complex of several things. There is not one property which makes something money, but money is the combination of two distinct (though related) things: measure of value and means of circulation. In order to delineate the scope of chapter Three, it should be noted that drawing interest etc. are *not* functions of money but functions of *capital*. Again, *Contribution* is helpful here, look at 303:2:

The main difficulty in the analysis of money is overcome as soon as one has grasped its origin out of the commodity itself. Once this is accomplished, the only task remaining is to comprehend the peculiar determinations of its form without alien admixtures, which is somewhat tricky because all bourgeois relations appear gilded, i.e., as money relations, and the money form, therefore, seems to possess an infinitely varied content, which is alien to the money form as

Die Hauptschwierigkeit in der Analyse des Geldes ist überwunden, sobald sein Ursprung aus der Ware selbst begriffen ist. Unter dieser Voraussetzung handelt es sich nur noch darum, seine eigentümlichen Formbestimmtheiten rein aufzufassen, was einigermaßen erschwert wird, weil alle bürgerlichen Verhältnisse vergoldet oder versilbert, als Geldverhältnisse erscheinen, und die Geldform daher einen unendlich mannigfaltigen Inhalt zu besitzen scheint, der

such.

| ihr selbst fremd ist.

3.1. Measure of Value

Chapter One, section 1.3, derived money as the culmination of a long development, from the Simple to the Expanded to the General value form, and finally to the so-called Money form of the commodity. This Money form is now, in Chapter Three, the point of departure of a new development, in which various functions of money are derived. This is not the continuation of the earlier development, but indeed a new beginning. This new beginning has become possible because of the special nature of the step from the General equivalent form to the Money form. In 80:3, Marx stresses that this step no longer represents a development of the value form of the commodity, but this step consists in a certain value form coalescing “by social custom” with a certain use-value. Such a merging of several determinations is what Marx calls something “concrete”:

The concrete is concrete because it is the meeting point of many determinations, thus a unity of the diverse. *Grundrisse*, 38:1.

The Money form of the commodity is the meeting point of *two* determinations: a certain use-value (gold) and a certain value form (General equivalent). Once these two disparate things are reliably conjoined, so that the same use-value, gold, always occupies the role of General equivalent, new possibilities are opened up and new developments are set in motion. We will see that the economic determinations of money greatly exceed those of a General equivalent. Chapter Three develops the further determinations flowing from this synthesis.

Section 1 of chapter Three moves back and forth several times between relative value form and equivalent form. After one side has reached a certain stage of development, also the other side is developed further. This is a common *research* procedure: one first understands one thing better, then this throws light on a related thing, then that throws light on the first thing again, and so it goes back and forth. However here it is meant as an social process: since the General equivalent has by a social convention become merged with the use-value of gold, new social functions accrue to it due to the creative practical activity of the individuals involved. These new social functions modify the relative General value form, then this acts back on the equivalent form, and so on.

Here is a summary of this back-and-forth:

- (0) The final transition in section 1.3 of chapter One, p. 80:1, was the development of a social custom according to which the “ordinary” commodities always select the same commodity, gold, as General equivalent. This coordination can be classified as an activity springing from the relative value form.
- (1) This has the effect on the equivalent form that gold becomes *measure of values*.
- (2) The development of the equivalent into measure of value acts back on the relative form, which becomes the *Price form*. The price becomes a “natural” attribute of the commodity, it is no longer seen as something relative.

From the Price form, Marx identifies two causal influences back on the equivalent form:

- (3a) For its function as measure of value, gold need not be physically present. Only its quality, not the quantity counts.

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- (3b) Since different commodities relate through their prices not only to gold but also to *each other*, a certain quantity of gold must be socially fixed as *standard of prices*. Gold itself disappears, but a shadow of its quantity remains.

Before going back to the relative form of value, Marx discusses the confusion between measure of value and standard of prices.

- (4) The standard of prices (which is a development of the equivalent form) turns prices into mere numbers, the “*money names*.”
- (5) The abstractness of the money names (the money name of a commodity is a version of its relative form of value) also causes the equivalent form to become abstract and turns it into *money of account*.

Money of account, the most abstract form of the General equivalent, is the climax of the repeated back-and-forth motion in this section. After this, Marx makes one more cycle, which no longer develops the form but moves the discussion forward in a different way. The transition from the equivalent form to the relative form is again twofold:

- (6a) Although it is the surface representation of the quantity of value, the relative form of value is also subject to influences that have nothing to do with value but arises from the discrepancy between demand and supply. This is not a defect but it is necessary to ensure that those things are produced which are needed.
- (6b) The general function of money as measure of value of all commodities leads to it that also other things, which are not commodities, are measured in money.

These two transitions discuss therefore the quantitative and qualitative discrepancies between the forms of value and value itself.

- (7) The general acceptance of money as measure of value also leads to money itself entering the circulation process.

This final step, from the relative to the equivalent form, is the transition to section 3.2, Means of Circulation.

3.1.a. [First Function of Gold: Measure of Value]

After this overview let us discuss section 3.1 paragraph by paragraph.

103:2 Throughout this work I assume, for the sake of simplicity, that gold is the money-commodity.

109:1 Ich setze überall in dieser Schrift, der Vereinfachung halber, Gold als die Geldware voraus.

Chapter Two, starting with 99:1, explains why the money form attaches itself to one of the noble metals. In order to simplify the discussion, Marx disregards the fact that during his time not one but two commodities, gold and silver, served as international money. Paragraph 106:1 below, and footnote 108 to paragraph 153:2 in the subsection 3.3.c about World Money discuss this “bimetallism.”

The next paragraph picks up the thread from section 1.3 of chapter One. At the end of that section, the commodities, by their joint action, turn gold into money. As the formulation in 80:1 makes very clear, this is an act on the part of the relative value form. As step (1) in his series of back-and-forth steps, Marx asks: what does this mean for the equivalent form?

It means that the money commodity becomes “measure of value.” *Contribution*, 304:1/o, formulates the step from General equivalent to measure of value as follows:

Since <i>all</i> commodities measure their exchange-values in gold, in the proportion, in which a given amount of gold and a given amount of commodity contain equal amounts of labor-time, Gold becomes the <i>measure of value</i>.	Weil <i>alle</i> Waren ihre Tauschwerte in Gold messen, in dem Verhältnis, worin bestimmte Quantität Gold und bestimmte Quantität Ware gleich viel Arbeitszeit enthalten, wird das Gold zum <i>Maß der Werte</i>, ...
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↑ The counterpart of gold being *always and everywhere* General equivalent is that the expression of the values of all commodities in gold becomes a measuring of their values.

Question 487 In *Contribution*, 304:1/o, Marx writes: “Since all commodities measure their exchange-values in gold, ..., gold becomes the measure of value.” Why does he use the word “becomes” here instead of saying “Since all commodities measure their exchange-values in gold, gold is the measure of value”? 2013fa, 2012fa, 2011fa.

The above quote was from *Contribution*. ↓ Here is the formulation in *Capital*. While *Contribution* had the “all” in “all commodities” in italics, *Capital* speaks of the “world of commodities:”

104:1 The first function of gold is: to provide the world of commodities with the material in which commodities can express their values, or: to represent the values of all commodities as magnitudes of the same denomination, qualitatively equal and quantitatively comparable.	109:2 Die erste Funktion des Goldes besteht darin, der Warenwelt das Material ihres Wertausdrucks zu liefern oder die Warenwerte als gleichnamige Größen, qualitativ gleiche und quantitativ vergleichbare, darzustellen.
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The Moore-Aveling translation, MEGA II/9 p. 81 line 18, says “first chief function of money” where the German says “first function of gold.” Fowkes says “gold.” I think “gold” is better. Marx is not yet talking about money but about the noble metal which has monopolized the role of General equivalent and through this *becomes* money. Until section 3.2 of chapter Three, only the

becoming of money is discussed. In those parts of section 1.3 of chapter One which discuss the money form (pp. 80:1–81:3) Marx never says: “Gold is money,” but always uses formulations such as: “Gold becomes the money commodity,” or “functions as money,” “gold faces the other commodities as money.” Also the presently discussed passage at the beginning of chapter Three,

section 3.1 (p. 104:1) reads: “gold ... become(s) money.” It is not until section 3.3 of chapter Three that Marx indicates that this becoming of money has been completed: “The commodity which functions as measure of value and therefore also as means of circulation is money. Gold is therefore money. It functions as money ...” (p. 140:1).

↑ Marx calls this the first function of *gold*, not of money, because it is the first function of the use-value which by social custom now and everywhere is the General equivalent. The reliability and continuity on the side of the equivalent is complemented by the universality and uniformity on the side of the relative value form. The formulation “qualitatively equal and quantitatively comparable” can also be found in 104:1.

↓ The commodity that serves as a Simple or Particular Expanded equivalent plays, as Marx argued in 76:6/o, a passive role. If it is General equivalent, its role is no longer quite as passive. The “deed” can be compared to an election. Although the commodities do the voting, the elected commodity is authorized by this vote to act on its mandate. With the further development into the Money form of value, this role of the equivalent develops into a *function* of the money commodity.

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It thus functions as a general measure of value, and it is at first only by this function that gold, the specific equivalent commodity, becomes money.

So funktioniert es als allgemeines Maß der Werte, und nur durch diese Funktion wird Gold, die spezifische Äquivalentware, zunächst Geld.

The “specific equivalent commodity” is, by definition, that commodity whose natural form has become irrevocably joined with the form of universal exchangeability or the General equivalent form. “At first” because in section 3 we will see that this is only the beginning of a development in which gold “becomes” money. If Marx says here that gold at first becomes money by its function of measure of value, he means that this is what is needed in order to trigger the whole process of becoming, which will be detailed throughout this chapter. Even though today’s money is no longer *commodity* money, it can still be argued that its first function is ‘measure of value’.

Question 488 *Is Marx’s claim in Contribution 286:3/000 still valid today that the commodity’s “second existence as exchange-value itself can only be another commodity, because it is only commodities which confront one another in the exchange process”? 2013fa, 2011fa, 2007fa, 2001fa.*

The next paragraph reminds us that the function of money as measure of value is the result of the activity of the ordinary commodities in the relative form of value.

104:2 The commodities do not become commensurable through money. Quite the contrary. Only because all commodities, as values, are objectified human labor, and are therefore in and for themselves commensurable, can they join together in order to measure their values in one and the same specific commodity, and thus turn this commodity into the common measure of their values, i.e. into money.

109:3 Die Waren werden nicht durch das Geld kommensurabel. Umgekehrt. Weil alle Waren als Werte vergegenständlichte menschliche Arbeit, daher an und für sich kommensurabel sind, können sie ihre Werte gemeinschaftlich in derselben spezifischen Ware messen und diese dadurch in ihr gemeinschaftliches Wertmaß oder Geld verwandeln.

↑ Causality goes from production to the circulation and from the relative form of value to the equivalent form. Oblique reference to the deed. ↓ Also the next sentence implies that the inner measure, labor-time, is the primary driving force, generating the exterior measure, money.

Money as a measure of value is the necessary form of appearance of the immanent measure of value of the commodities, namely labor-time.⁵⁰

Geld als Wertmaß ist notwendige Erscheinungsform des immanenten Wertmaßes der Waren, der Arbeitszeit.⁵⁰

↑ “Labor time” (*Arbeitszeit*) is older terminology. Marx replaced this on many places by the newer terminology “abstract labor,” but he was not entirely consistent.

In England at Marx’s time, paper money represented gold. Today, the US dollar is paper money which represents the world-wide dominance of the US as the only superpower. Neither now nor then did paper money represent labor. Footnote 50 explains why money *cannot* represent labor:

⁵⁰ The question why money does not directly represent labor-time itself, so that a piece of paper may represent, for instance, x labor hours, comes down simply to the question why, on the

⁵⁰ Die Frage, warum das Geld nicht unmittelbar die Arbeitszeit selbst repräsentiert, so daß z.B. eine Papiernote x Arbeitsstunden vorstellt, kommt ganz einfach auf die Frage heraus, warum

basis of commodity production, the products of labor must take the form of commodities, since their assuming the form of commodities implies their differentiation into commodities on the one hand and the money commodity on the other. It is the question why private labor cannot be treated as its opposite, directly social labor. Elsewhere I have given an exhaustive discussion of the shallow utopianism of the idea of ‘labor money’ in a society founded on the production of commodities (op. cit., p. 320:2–321:4 ff.)

auf Grundlage der Warenproduktion die Arbeitsprodukte sich als Waren darstellen müssen, denn die Darstellung der Ware schließt ihre Verdoppelung in Ware und Geldware ein. Oder warum Privatarbeit nicht als unmittelbar gesellschaftliche Arbeit, als ihr Gegenteil, behandelt werden kann. Ich habe den seichten Utopismus eines Arbeitsgelds auf Grundlage der Warenproduktion anderswo ausführlich erörtert. (l.c. p. 320:2–321:4 ff.)

↑ Marx refers here to his discussion of Gray’s labor money in *Contribution*, 320:2–321:4.

Question 491 Why this detour over gold, why not measure value directly by labor-time? 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2005fa, 2003fa, 2002fa, 1998WI, 1997ut, 1997sp.

↓ The second half of the footnote is a reminder not to confuse Gray’s theory with that of Robert Owen. Gray wants to maintain commodity production, while Owen wants to abolish it. Marx’s critique of labor money only refers to Gray, not to Owen:

^{50 ctd} At this point I will only say further that Owen’s ‘labor money’, for instance, is no more ‘money’ than a theater ticket is. Owen presupposes directly socialized labor, a form of production diametrically opposite to the production of commodities. The certificate of labor is merely evidence of the part taken by the individual in the common labor, and documents his claim to a portion of the common product that has been set aside for consumption. But Owen never makes the mistake of presupposing the production of commodities and hoping that he can, by tinkering with money, avoid the necessary conditions for that form of production.

^{50 ctd} Hier sei noch bemerkt, da z.B. das Owensche „Arbeitsgeld“ ebensowenig „Geld“ ist wie etwa eine Theatermarke. Owen setzt unmittelbar vergesellschaftete Arbeit voraus, eine der Warenproduktion diametral entgegengesetzte Produktionsform. Das Arbeitszertifikat konstatiert nur den individuellen Anteil des Produzenten an der Gemeinarbeit und seinen individuellen Anspruch auf den zur Konsumtion bestimmten Teil des Gemeinprodukts. Aber es fällt Owen nicht ein, die Warenproduktion vorauszusetzen und dennoch ihre notwendigen Bedingungen durch Geldpfuschereien umgehn zu wollen.

Question 492 Why is “labor money” not money? 2013fa, 2012fa, 2011fa, 2007fa, 2007SP, 2003fa.

3.1.b. [Exchange-Value Becomes Price]

Step (2) goes back from the equivalent to the relative value form. What happens to the relative value form of a commodity if gold becomes the measure of value? It becomes the price of that commodity. The next two pages discuss the price of a commodity, here one ton of iron.

104:3/o The expression of the value of a commodity in gold— x commodity $A = y$ money commodity—is the commodity’s money form or its price. A single equation, such as 1 ton of iron = 2 ounces of gold, now suffices to express the value of iron in a socially valid manner. There is no longer

110:1 Der Wertausdruck einer Ware in Gold— x Ware $A = y$ Geldware—ist ihre Geldform oder ihr Preis. Eine vereinzelt Gleichung, wie 1 Tonne Eisen = 2 Unzen Gold, genügt jetzt, um den Eisenwert gesellschaftlich gültig darzustellen. Die Gleichung braucht nicht länger in Reih und

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any need for this equation to line up together with all other equations that express the values of the other commodities, because the equivalent commodity, gold, already possesses the character of money. The commodities' general relative value form has thus the same shape as their original relative value form, the Simple or Individual form of value.

Glied mit den Wertgleichungen der andren Waren aufzumarschieren, weil die Äquivalentware, das Gold, bereits den Charakter von Geld besitzt. Die allgemeine relative Wertform der Waren hat daher jetzt wieder die Gestalt ihrer ursprünglichen, einfachen oder einzelnen relativen Wertform.

Definition of price. One single equation, which looks like the Simple form of value, is now a "socially valid" expression of the value of one ton of iron. The word "single" in the second sentence of Marx's text above is in German "*vereinzelt*," indicating that this single-ness is not original but produced, the result of a social process. A *social* relation takes form of a relationship between two individual commodities.

Exam Question 493 *What is the price of a commodity? Say how it is defined, and say as much as you can about it without going into Marx's theory how its magnitude is determined.* 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007SP, 2005fa, 2004fa, 2003fa, 2001fa, 1999SP, 1998WI, 1997sp.

Question 496 *Compare the Price form with the Simple form of value.* 2013fa, 2012fa, 2009fa, 2007SP, 2004fa, 2003fa.

Whereas the expression of the value of any ordinary commodity looks now like the Simple form of value, the expression of the value of money looks like the Expanded form of value:

On the other hand, the Expanded relative expression of value, the endless series of equations, has now become the specific relative form of value of the money commodity.

Andrerseits wird der entfaltete relative Wertausdruck oder die endlose Reihe relativer Wertausdrücke zur spezifisch relativen Wertform der Geldware.

↓ Usually the commodity in the relative form of value plays an active role. This is not the case here:

The endless series, however, is already socially given in the prices of the commodities. We only need to read the quotations of a price list backwards, to find the magnitude of the value of money expressed in all possible commodities.

Diese Reihe ist aber jetzt schon gesellschaftlich gegeben in den Warenpreisen. Man lese die Quotationen eines Preiskurants rückwärts und man findet die Wertgröße des Geldes in allen möglichen Waren dargestellt.

↑ The money commodity does not have to work to establish its value form. Rather, this value form is already given. Since all goods express their values in money, money becomes "directly exchangeable" for them. Compare 77:2/o. The ability to buy everything is a powerful expression of the labor-value of commodity in money form.

Question 497 *How is the value of money expressed?* 2013fa, 2012fa, 2011fa, 2009fa, 2008fa, 2008SP, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1999SP, 1998WI, 1997ut, 1997sp.

Question 499 *If linen is offered in exchange for a coat, Marx is adamant that this is not an expression of the value of the coat, only of the linen. But if linen is offered in exchange for money, then the linen is part of the expression of the value of money, along with all other commodities which have a price. How did this difference come about?* 2013fa, 2012fa, 2011fa, 2009fa.

There is also something that is called the “price of gold,” namely, the mint price at which is converted into coins. This “price” of gold however is not an expression of its value:

A price, however, money does not have. This uniform relative form of value of the other commodities is not open to money, because money cannot be brought into relation with itself as its own equivalent.

Geld hat dagegen keinen Preis. Um an dieser einheitlichen relativen Wertform der andren Waren teilzunehmen, müßte es auf sich selbst als sein eignes Äquivalent bezogen werden.

↑ The so-called “price of gold” or “mint price of gold” in a monetary system based on the gold standard is not a true price. It is not connected with the function of money as measure of value, but with the function of money as standard of prices. Marx will say more about this shortly.

Question 500 *Is the “mint price” of gold a price?*

105:1/o The price or money form of commodities, like their form of value generally, is a form different from their palpable and real bodily forms, i.e., it is a merely notional or imagined form.

110:2–111 Der Preis oder die Geldform der Waren ist, wie ihre Wertform überhaupt, eine von ihrer handgreiflich reellen Körperform unterschiedne, also nur ideelle oder vorgestellte Form.

Marx says here something about the price form which is true for all value forms of a commodity: it is “notional.” The German word translated here by “notional” is “*ideell*.” It is incorrect to translate “*ideell*” with “ideal.” Marx makes a strict distinction between the German terms “*ideal*” and “*ideell*.” Something which is *ideal* is by definition not real, it is an idealization of something real. The price of a commodity is not *ideal* in this sense. Marx held the view that social relations are real forces, that they are independent causal powers. A defense of this causal criterion of “reality” is given by Bhaskar in [Bha89, p. 69:2]. Nevertheless, certain social relations “exist” most importantly in the heads of the individuals, i.e., they are “notional” (*ideell*). One should not be confused by this formulation and think Marx wanted to deny their reality.

↓ The value of a commodity is not a surface category. It represents the social relations under which the commodity was produced, namely, the abstract human labor spent during its production. In the negotiations between buyer and seller, only the properties of the product itself are discussed; the labor spent by the producer is treated as if it was the private affair of the producer. In this sense, the value is “invisible” to the surface agents:

Although invisible, the value of iron, linen and corn exists in these very articles: it is made accessible through their equality with gold, a relation with gold which, so to speak, sticks only in the heads of these commodities.

Der Wert von Eisen, Leinwand, Weizen usw. existiert, obgleich unsichtbar, in diesen Dingen selbst; er wird vorgestellt durch ihre Gleichheit mit Gold, eine Beziehung zum Gold, die sozusagen nur in ihren Köpfen spukt.

↑ Although nobody is talking about this labor content it plays an important role in the surface interactions, it is so-to-say the elephant in the room. If market prices are above the

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value determined by this labor content, more suppliers tend to appear on the market until the discrepancy between values and prices disappears. If market prices are below value, supply will diminish. One can think of value as a substance inside the commodities which is squeezed, therefore tends to raise prices, if the commodity is sold below its value, and which is stretched, therefore tends to lower prices, if the commodity is sold above its value. This is why Marx says it is invisibly present in the commodity. By their attempts to get a price as high as possible the market participants take part in the process in which value finds its magnitude. This is why Marx says that the value is “*vorgestellt*,” i.e., represented, introduced into social interactions, by its exchange relationship with gold on the surface of the economy.

But the last half of this sentence above seems to indicate that we have not made much headways, since this relation is *still* invisible. Marx uses the metaphor that it “sticks inside the heads of the commodities:” the commodities know their values but they are mute, they cannot speak.

The guardian of the commodities must therefore lend them his tongue, or hang a ticket on them, in order to communicate their prices to the outside world.⁵¹

Der Warenhüter muß daher seine Zunge in ihren Kopf stecken oder ihnen Papierzettel umhängen, um ihre Preise der Außenwelt mitzuteilen.⁵¹

↑ Marx says here only that the owners can speak. He has not yet indicated on what basis they price their commodities. This is the subject of the next passage.

Question 502 *Imagine you were studying Marxism together with a friend, and the friend said to you: Doesn't the labor theory of value imply that people should write the labor content of their commodities on the price signs instead of amount of money? How would you answer your friend?* [2012fa](#), [2011fa](#).

⁵¹ Savages and semi-savages use the tongue differently. Captain Parry says of the inhabitants of the West coast of Baffin's Bay: 'In this case (the case of barter) they licked it (the thing represented to them) twice to their tongues, after which they seemed to consider the bargain satisfactorily concluded.' In the same way, among the Eastern Eskimos, the exchanger licked each article on receiving it. If the tongue is thus used in the North as the organ of appropriation, it is no wonder that in the South the stomach serves as the organ of accumulated property. A Kaffir estimates the wealth of a man by the size of his belly. The Kaffirs know what they are doing, for at the same time as the official British Health Report of 1864 was bemoaning the deficiency of fat-forming substances among a large part of the working class, a certain Dr. Harvey (not, however, the man who discovered the circulation of the blood) was doing well by advertising recipes for reducing the surplus fat of the bourgeoisie and the aristocracy.

⁵¹ Der Wilde oder Halbwilde braucht die Zunge anders. Kapitän Parry bemerkt z.B. von den Bewohnern an der Westküste der Baffins-bay: „In diesem Falle“ (beim Produktaus-tausch) „...beleckten sie es“ (das ihnen Angebotene) „zweimal mit der Zunge, wonach sie das Geschäft als zur Zufriedenheit abgeschlossen zu betrachten schienen.“ Ebenso beleckte bei den östlichen Eskimos der Eintauscher jedesmal den Artikel beim Empfang desselben. Wenn die Zunge so im Norden als Organ der Aneignung, ist es kein Wunder, daß der Bauch im Süden als Organ des akkumulierten Eigentums gilt und der Kaffer den Reichtum eines Mannes nach seinem Fett-wanst schätzt. Die Kaffern sind grundgescheite Kerle, denn während der offizielle britische Gesundheitsbericht von 1864 den Mangel eines großen Teils der Arbeiterklasse an fettbildenden Substanzen beklagt, machte ein Dr. Harvey, der jedoch nicht die Blutzirkulation erfunden hat, in demselben Jahre sein Glück durch Puff-Rezepte, die der Bourgeoisie und Aristokratie Fettüber-flusseslast abzutreiben versprochen.

Marx's source for Captain Parry's report is [[Par21](#), p. 227].

By their price tags, the commodities tell the world what they are worth (or at least what their owner thinks they are worth). This is not merely a theoretical musing but has practical implications: the price tag commits the owner to hand the commodity over to anyone who is willing to pay the marked price. The price therefore has real effects, although the gold that makes pricing possible does not have to be present.

Since expression of the value of commodities in gold is a purely notional act, it requires only imagined or notional gold. Every owner knows that by giving price form (i.e., imagined gold form) to the value of his commodities he is nowhere near turning them into gold. It also does not require the tiniest particle of real gold to give a valuation in gold of millions of pounds' worth of commodities.

Da der Ausdruck der Warenwerte in Gold ideell ist, ist zu dieser Operation auch nur vorgestelltes oder ideelles Gold anwendbar. Jeder Warenhüter weiß, daß er seine Waren noch lange nicht vergoldet, wenn er ihrem Wert die Form des Preises oder vorgestellte Goldform gibt, und daß er kein Quentchen wirkliches Gold braucht, um Millionen Warenwerte in Gold zu schätzen.

3.1.c. [Commodity Prices and the Value of Gold]

↑ It seems Marx went off on an odd tangent here. The process of giving a price does not require actual gold and also does not immediately yield actual gold. This observation seems too trivial to be worth repeating. However it opens up the nontrivial question: what *is* the real basis behind the act of price-giving? Marx claims that gold does enter this process. Since it does not have to be present and also will not necessarily be present, Marx calls it “imagined.”

In its function as measure of value, money serves therefore—as only imagined or notional money.

In seiner Funktion des Wertmaßes dient das Geld daher—als nur vorgestelltes oder ideelles Geld.

This is the step (3a), going back to the equivalent form. Now Marx uses the word “money,” not “gold,” because this is true for all other forms of currency too. Since this invites false theories of money, this would be a good place to give some theory-critical remarks. Instead of making such remarks here, Marx refers to *Contribution*:

This circumstance has given rise to the wildest theories.⁵²

Dieser Umstand hat die tollsten Theorien veranlaßt.⁵²

⁵² See Karl Marx, *Contribution to the Critique* etc., ‘Theories of the Standard of Money’, pp. 53 ff. [English translation, pp. 76 ff.].

⁵² Siehe Karl Marx, „Zur Kritik etc.“, „Theorien von der Maßeinheit des Geldes“, p. 53 sqq.

Marx asks now: what information about money *is* needed?

But, although the money that performs the function of a measure of value is only imagined, the price depends entirely on the actual substance that is money. The value, i.e. the quantity of human labor contained in a ton of iron, is expressed by an imagined quantity of the money commodity containing the same amount of labor as the iron.

Obgleich nur vorgestelltes Geld zur Funktion des Wertmaßes dient, hängt der Preis ganz vom reellen Geldmaterial ab. Der Wert, d.h. das Quantum menschlicher Arbeit, das z.B. in einer Tonne Eisen enthalten ist, wird ausgedrückt in einem vorgestellten Quantum der Geldware, welches gleich viel Arbeit enthält.

How does Marx know that? ↓ Here is a simple fact suggesting that actual prices follow Marx's theory:

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Therefore according to whether it is gold, silver or copper which is serving as the measure of value, the value of the ton of iron obtains very different price expressions, or will be represented by very different quantities of those metals.

Je nachdem also Gold, Silber oder Kupfer zum Wertmaß dienen, erhält der Wert der Tonne Eisen ganz verschiedene Preisausdrücke oder wird in ganz verschiedenen Quantitäten Gold, Silber oder Kupfer vorgestellt.

One should not take this to mean that the *seller* needs to know how much labor is contained in gold. There is a connection, but it is more complicated than this.

Question 503 *By putting a price tag on a commodity, does the seller declare, assert, that this commodity contains as much labor as the corresponding amount of gold?* 2013fa, 2012fa, 2011fa, 2009fa, 2008fa, 2007fa, 2004fa, 2002fa, 1997ut.

Question 504 *Marx says that under the gold standard the magnitude of the price of a commodity is that amount of gold which contains the same amount of socially necessary labor as the commodity. However the person who purchases the commodity has, as a rule, no idea how much labor his gold coin represents. Which mechanism did Marx postulate for the dependence of the price level on the labor content of gold?* 2007fa, 2004fa, 2002fa, 1998WI.

To illustrate the role played by the actual money material, Marx discusses next the relation between gold prices and silver prices of commodities.

106:1 If therefore two different commodities, such as gold and silver, serve simultaneously as measures of value, all commodities will have two separate price-expressions, the price in gold and the price in silver, which will quietly co-exist as long as the ratio of the value of silver to that of gold remains unchanged, say at 1:15. However, every alteration in this ratio disturbs the ratio between the gold prices and the silver prices of commodities, and thus proves in fact that a duplication of the measure of value contradicts the function of that measure.⁵³

111:1 Dienen daher zwei verschiedene Waren, z.B. Gold und Silber, gleichzeitig als Wertmaße, so besitzen alle Waren zweierlei verschiedene Preisausdrücke, Goldpreise und Silberpreise, die ruhig nebeneinander laufen, solange das Wertverhältnis von Silber zu Gold unverändert bleibt, z.B. = 1:15. Jede Veränderung dieses Wertverhältnisses stört aber das Verhältnis zwischen den Goldpreisen und den Silberpreisen der Waren und beweist so tatsächlich, daß die Verdopplung des Wertmaßes seiner Funktion widerspricht.⁵³

⁵³ 'Wherever silver and gold exist side by side as legal money, i.e. as measure of value, the vain attempt has invariably been made to treat them as one and the same substance. If one assumes that a given labor-time must be objectified in the same unchanging proportion in silver and gold, then one assumes, in fact, that gold and silver are the same substance, and that silver, the less valuable metal, represents a constant fraction of gold. From the reign of Edward III to the time of George II, the history of money in England consists of one long series of perturbations caused by the clash between the legally fixed ratio be-

⁵³ Note zur 2. Ausg. „Wo Gold und Silber gesetzlich als Geld, d.h. als Wertmaß nebeneinander bestehen, ist stets der vergebliche Versuch gemacht worden, sie als eine und dieselbe Materie zu behandeln. Unterstellt man, daß dieselbe Arbeitszeit sich unveränderlich in derselben Proportion von Silber und Gold vergegenständlichen muß, so unterstellt man in der Tat, daß Silber und Gold dieselbe Materie sind und daß eine bestimmte Masse des minder wertvollen Metalls, des Silbers, den unveränderlichen Bruchteil einer bestimmten Goldmasse bildet. Von der Regierung Edwards III. bis zur Zeit von Ge-

tween the values of gold and silver, and the fluctuations in their real values. At one time gold was too high, at another, silver. The metal that was estimated below its value was withdrawn from circulation, melted down and exported. The ratio between the two metals was then again altered by law, but the new nominal ratio soon came into conflict, in its turn, with the real ratio. In our own times, the slight and transient fall in the value of gold compared with silver, which was a consequence of the Indian and Chinese demand for silver, produced on a far more extended scale in France the same phenomena, export of silver, and its expulsion from circulation by gold. During the years 1855, 1856 and 1857, the excess in France of gold-imports over gold-exports amounted to £41,580,000, while the excess of silver-exports over silver-imports came to £34,704,000. In fact, in countries in which both metals are legally measures of value, and therefore both legal tender, so that everyone has the option of paying in either metal, the metal that rises in value is at a premium, and, like every other commodity, measures its price in the overvalued metal which alone serves in reality as the measure of value. All the experience of history in this area can be reduced simply to this fact, that where two commodities perform by law the functions of a measure of value, in practice only one maintains that position' (Karl Marx, op. cit., pp. 52-3) [English edition, pp. 75-6].

org II. verläuft sich die Geschichte des englischen Geldwesens in eine fortlaufende Reihe von Störungen, hervorgehend aus der Kollision zwischen der gesetzlichen Festsetzung des Wertverhältnisses von Gold und Silber und ihren wirklichen Wertschwankungen. Bald war Gold zu hoch geschätzt, bald Silber. Das zu niedrig geschätzte Metall wurde der Zirkulation entzogen, umgeschmolzen und exportiert. Das Wertverhältnis beider Metalle wurde dann wieder gesetzlich verändert, aber der neue Nominalwert trat bald mit dem wirklichen Wertverhältnis in denselben Konflikt wie der alte.—In unserer eigenen Zeit hat der sehr schwache und vorübergehende Fall im Wert von Gold gegen Silber, infolge der indisch-chinesischen Silbernachfrage, dasselbe Phänomen auf der größten Stufenleiter in Frankreich erzeugt, Ausfuhr von Silber und seine Vertreibung aus der Zirkulation durch Gold. Während der Jahre 1855, 1856, 1857 betrug der Überschuß der Goldeinfuhr in Frankreich über die Goldausfuhr aus Frankreich 41 580 000 Pfd.St., während der Überschuß der Silberausfuhr über die Silbereinfuhr 34 704 000 Pfd.St. betrug. In der Tat, in Ländern, wo beide Metalle gesetzliche Wertmaße sind, daher beide in Zahlung angenommen werden müssen, jeder aber beliebig in Silber oder Gold zahlen kann, trägt das im Wert steigende Metall ein Agio und mißt wie jede andere Ware seinen Preis in dem überschätzten Metall, während letzteres allein als Wertmaß dient. Alle geschichtliche Erfahrung in diesem Gebiet reduziert sich einfach darauf, daß, wo gesetzlich zwei Waren die Funktion des Wertmaßes versehen, faktisch immer nur eine als solches den Platz behauptet.“ (Karl Marx, l.c. p. 52, 53.)

Question 506 *Why does only the overvalued metal serve as measure of value?*

More about bimetallism will be said in 153:2, especially Footnote 108.

From chapter One, section 1.3 we know that value must express itself in one commodity only. Under bimetallism, this requirement is not met. Bimetallism pretends that two different commodities, gold and silver, are just different quantities of one of the same substance, which can lead to crises (Gresham's law: small differences in preferability induce the money holders to make huge shifts in money holdings).

Question 507 *Assume under bimetallism the nominal value of silver falls below its real value. Will then silver coins be used for exchange or gold coins? (To answer this, it is necessary to define “nominal value” and “real value” of silver in this situation.) 2011fa, 2008fa, 1997sp.*

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The disturbances created by the duplication of the measure of value in bimetallism confirm how powerful the requirement is that the value form of commodities must be uniform. Marx does not say here explicitly that these disturbances are also proof that the production costs of gold and silver did matter during gold standard times and were closely watched.

3.1.d. [Standard of Prices]

If we know that 1 lb of wheat has as much labor as 2 g of gold, we still don't know the *price* of wheat. For this it is also necessary to know how much gold is represented by 1 monetary unit. The measuring unit of gold as measure of value is different from its measuring unit as the use-value gold. This second step is the function of gold as standard of prices. This is not a "higher" function than measure of value, but an additional, more technical function. After gold, in its function as measure of value, has associated every commodity with a certain amount of gold, the need arises to give names to different quantities of gold in their capacity as measure of value, and to compare these quantities with each other. Marx calls this service as a measuring stick an additional "function" of gold, its function as standard of prices.

Question 509 *Gold already has a measure, its weight measure (ounces). Why not use this weight measure as measuring unit for prices, i.e., why are prices measured in francs, pesos, lira, dollar, etc., instead of ounces of gold? 2013fa, 2012fa.*

The function of gold as standard of prices is introduced by an alternative transition from the relative form of value, i.e., the price, back to the equivalent form. In our numbering it is back-and-forth-step (3b). In prices, all commodities have a uniform value expression which expresses two things:

- the value of each commodity differs from its use-value.
- the values of different commodities are qualitatively equal, they only differ by their quantities.

While 104:3–106:1 discussed the price of one single commodity, one ton of iron, step (3b) addresses the second aspect and looks at the prices of several commodities together.

106:2/o After having received prices, all commodities present themselves in the form: a commodity $A = x$ gold; b commodity $B = y$ gold; c commodity $C = z$ gold, etc., where a, b, c represent definite quantities of the commodities A, B, C , and x, y, z definite quantities of gold. The values of these commodities are therefore transformed into imagined amounts of gold of different magnitudes. Despite the colorful variety of the bodies of the commodities, their values become magnitudes of the same denomination, gold-magnitudes.

112 Die preisbestimmten Waren stellen sich alle dar in der Form: a Ware $A = x$ Gold, b Ware $B = z$ Gold, c Ware $C = y$ Gold usw., wo a, b, c bestimmte Massen der Warenarten A, B, C vorstellen, x, z, y bestimmte Massen des Goldes. Die Warenwerte sind daher verwandelt in vorgestellte Goldquanta von verschiedener Größe, also, trotz der wirren Buntheit der Warenkörper, in gleichnamige Größen, Goldgrößen.

↓ With this qualitative homogenization for all commodities, the need arises to compare different quantities of gold, which represent the values of different commodities, with each other:

As different quantities of gold, they can be compared with each other and measure each other. For technical reasons the need arises to relate them to some fixed quantity of gold as their unit of measurement. This unit, by subsequent division into aliquot parts, becomes itself an entire scale, the standard of measurement.

Als solche verschiedene Goldquanta vergleichen und messen sie sich untereinander, und es entwickelt sich technisch die Notwendigkeit, sie auf ein fixiertes Quantum Gold als ihre Maßeinheit zu beziehen. Diese Maßeinheit selbst wird durch weitere Einteilung in aliquote Teile zum Maßstab fortentwickelt.

↓ One would think that this need is already met, because the commodities gold, silver, copper had standards of measurement already before they became money.

Before they become money, gold, silver and copper already possess such standards in their weights, so that, for example, a pound, which serves as a unit of measurement, can on the one hand be divided into ounces, and on the other hand be combined with others to make up hundredweights.⁵⁴

Vor ihrer Geldwerdung besitzen Gold, Silber, Kupfer bereits solche Maßstäbe in ihren Metallgewichten, so daß z.B. ein Pfund als Maßeinheit dient und nach der einen Seite wieder in Unzen usw. abgeteilt, nach der andren in Zentner usw. zusammenaddiert wird.⁵⁴

↓ And indeed, the names of monetary units derive from weight units (e.g. Pound Sterling). It is owing to this that, in all metallic currencies, the names given to the standards of money or of price were originally taken from the preexisting names of the standards of weight.

Bei aller metallischen Zirkulation bilden daher die vorgefundenen Namen des Gewichtsmaßstabs auch die ursprünglichen Namen des Geldmaßstabs oder Maßstabs der Preise.

But weight units were used at monetary units only at the beginning. Over time, the monetary standard evolved away from these weight measures. This is why it is justified to say that the measurement of different gold quantities is an additional function of the money commodity gold.

⁵⁴ The peculiar circumstance that while the ounce of gold serves in England as the unit of the standard of money, it is not divided up into aliquot parts, has been explained as follows: 'Our coinage was originally adapted to the employment of silver only, hence an ounce of silver can always be divided into a certain adequate number of pieces of coin; but as gold was introduced at a later period into a coinage adapted only to silver, an ounce of gold cannot be coined into an aliquot number of pieces' (Maclaren, *A Sketch of the History of the Currency*, London, 1858, p. 16).

⁵⁴ Note zur 2. Ausg. Die Sonderbarkeit, daß die Unze Gold in England als Einheit des Geldmaßstabs nicht in aliquote Teile abgeteilt ist, erklärt sich wie folgt: „Unser Münzwesen war ursprünglich nur der Verwendung von Silber angepaßt—daher kann eine Unze Silber immer in eine bestimmte aliquote Anzahl von Geldstücken geteilt werden; da aber Gold erst in einer spätern Zeit in ein Münzwesen eingeführt wurde, das nur dem Silber angepaßt war, kann eine Unze Gold nicht in eine aliquote Anzahl von Münzen ausgeprägt werden.“ (Maclaren, „History of the Currency“, London 1858, p. 16.)

3.1.e. [Complementarity and Conflict between Measure of Values and Standard of Prices]

Under the gold standard, the price signs in the stores are not denominated in ounces or grams of gold, but in Pound Sterling or other currencies tied to gold. The Pound Sterling is (under the gold standard) a specific quantity of gold serving as measuring unit. Due to his usual analytical acuity, Marx sees that this separation of the currency names from the

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weight measures requires money to do two things at once. In the equation a commodity $A = z$ Pound Sterling, money serves in two functions: on the one hand as measure of value which leads to the equation a commodity $A = x$ gold, and then as standard of prices which specifies the quantity x by comparing the Sterling price z to the gold quantity representing 1 Pound Sterling. Although the function of money as a standard of prices is a much more trivial function than that of measure of value, Marx discusses it in detail because it is important to distinguish *changes* in the measure of value from *changes* in the standard of prices (and Marx is going to bring (FIXME give reference) examples from the literature where they are confused).

107:1/o As measure of value and as standard of price, money performs two quite different functions. It is the measure of value as the social incarnation of human labor; it is the standard of price as a quantity of metal with a fixed weight. As the measure of value it serves to convert the values of all the manifold commodities into prices, into imagined quantities of gold; as the standard of price it measures those quantities of gold. The measure of values allows commodities to measure themselves as values; the standard of price, by contrast, measures quantities of gold by a unit quantity of gold, not the value of one quantity of gold by the weight of another.

113:1 Als Maß der Werte und als Maßstab der Preise verrichtet das Geld zwei ganz verschiedene Funktionen. Maß der Werte ist es als die gesellschaftliche Inkarnation der menschlichen Arbeit, Maßstab der Preise als ein festgesetztes Metallgewicht. Als Wertmaß dient es dazu, die Werte der bunt verschiedenen Waren in Preise zu verwandeln, in vorgestellte Goldquanta; als Maßstab der Preise mißt es diese Goldquanta. Am Maß der Werte messen sich die Waren als Werte, der Maßstab der Preise mißt dagegen Goldquanta an einem Goldquantum, nicht den Wert eines Goldquantums am Gewicht des andren.

After pointing out how different the two functions of gold are, Marx shows next that they even come into conflict with each other. (Another case where Marx sees a contradiction overlooked by many others.) In order to function as standard of prices, the quantity of gold designated as measuring unit should remain stable over time. But since this same amount of gold also has to serve as measuring unit of value, the problem arises that the value of any given amount of gold is variable over time: with increasing productivity it decreases over time, and with increasing resource scarcity it increases over time. Marx investigates whether this variability precludes the function of gold as measure of value.

↓ First Marx says that any measuring unit performs its function best if it is fixed:

For the standard of price, a certain weight of gold must be fixed as the unit of measurement. In this case, as in all cases where quantities of the same denomination are to be measured, the stability of the measurement is decisive. The less the unit of measurement (here a quantity of gold) is subject to variation, the better it can therefore serve as standard of prices.

Für den Maßstab der Preise muß ein bestimmtes Goldgewicht als Maßeinheit fixiert werden. Hier, wie in allen andren Maßbestimmungen gleichnamiger Größen, wird die Festigkeit der Maßverhältnisse entscheidend. Der Maßstab der Preise erfüllt daher seine Funktion um so besser, je unveränderlicher ein und dasselbe Quantum Gold als Maßeinheit dient.

↑ A gold-based currency fulfills its function as standard of prices best if one pound sterling always represents the same amount of gold (i.e., if there is no debasement of the currency).

↓ But the *value* of this fixed amount of gold changes over time, does this mean this fixity prevents it from serving as measure of value?

But gold can serve as a measure of value

Als Maß der Werte kann Gold nur dienen,

only because it is itself a product of labor, and therefore potentially variable in value.⁵⁵

weil es selbst Arbeitsprodukt, also der Möglichkeit nach ein veränderlicher Wert ist.⁵⁵

The footnote remarks that the economists failed to make this distinction between measure of value and standard of prices and therefore ran into “indescribable confusions.”

⁵⁵ With English writers the confusion over MEASURE OF VALUE and standard of price (‘STANDARD OF VALUE’) is indescribable. Their functions, and therefore their names, are constantly interchanged.

⁵⁵ Note zur 2. Ausg. In englischen Schriften ist die Konfusion über Maß der Werte (measure of value) und Maßstab der Preise (standard of value) unsäglich. Die Funktionen und daher ihre Namen werden beständig verwechselt.

An example of this confusion will be given shortly, in footnote 61 to 110:2/o.

Does this variability in the value of gold disqualify gold from performing the two functions of measure of value and standard of prices? Marx considers this question in detail and his answer will be that this variability is not an obstacle. ↓ First he shows that the variability in the value of gold does not interfere with the function of gold as standard of prices:

108:1 It is, first of all, quite clear that a change in the value of gold in no way impairs its function as standard of prices. No matter how the value of gold varies, different quantities of gold always remain in the same value-relation to each other. If the value of gold fell by 1,000 per cent, 12 ounces of gold would continue to have twelve times the value of one ounce of gold, and when we are dealing with ounces we are only concerned with the relation between different quantities of gold. Since, on the other hand, an ounce of gold undergoes no change in weight when its value rises or falls, no change can take place in the weight of its aliquot parts. Thus gold always renders the same service as a fixed measure of price, however much its value may vary.

113:2 Es ist zunächst klar, daß ein Wertwechsel des Goldes seine Funktion als Maßstab der Preise in keiner Weise beeinträchtigt. Wie auch der Goldwert wechsle, verschiedene Goldquanta bleiben stets in selbem Wertverhältnis zueinander. Fiele der Goldwert um 1000%, so würden nach wie vor 12 Unzen Gold 12mal mehr Wert besitzen als eine Unze Gold, und in den Preisen handelt es sich nur um das Verhältnis verschiedener Goldquanta zueinander. Da andererseits eine Unze Gold mit dem Fallen oder Steigen ihres Werts keineswegs ihr Gewicht verändert, verändert sich ebensowenig das ihrer aliquoten Teile, und so tut das Gold als fixer Maßstab der Preise stets denselben Dienst, wie immer sein Wert wechsle.

↑ For trivial reasons, a change of value does not affect the role of gold as standard of prices at all. With a fall of the value of gold by 1000%, Marx presumably means a decline of the value by the factor of 10, which raises the gold prices of those commodities whose value does not change to 1000% of their original levels. ↓ A change of value also does not affect its role as measure of values, but here the reasoning is not quite as trivial. Marx proceeds in two steps. First he says that the relative values of two ordinary commodities is not affected by a change in the value of gold:

A change in the value of gold also does not prevent it from fulfilling its function as measure of value. The change affects all commodities simultaneously, and therefore, other things being equal, leaves the mutual relations between their values unaltered, although those values are now all expressed in higher or lower gold-prices than before.

113:3/o Der Wertwechsel des Goldes verhindert auch nicht seine Funktion als Wertmaß. Er trifft alle Waren gleichzeitig, läßt also caeteris paribus ihre wechselseitigen relativen Werte unverändert, obgleich sie sich nun alle in höheren oder niedrigeren Goldpreisen als zuvor ausdrücken.

↑ The variability of the value of gold does not preclude it from functioning as measure

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of value because it leaves relative prices unchanged. ↓ Next Marx investigates how the variability in value affects the absolute prices. Here the earlier discussion from Section 3 of Chapter One applies:

108:3 Just as in the case of the representation of the value of one commodity in the use-value of any other commodity, so also in this case, where commodities measure their values in gold, we assume nothing more than that the production of a given quantity of gold costs, at a given period, a given amount of labor. As regards the fluctuations of commodity prices in general, they are subject to the laws of the simple relative expression of value which we developed in an earlier chapter.

114:1 Wie bei der Darstellung des Werts einer Ware im Gebrauchswert irgendeiner andren Ware, ist auch bei der Schätzung der Waren in Gold nur vorausgesetzt, daß zur gegebenen Zeit die Produktion eines bestimmten Goldquantums ein gegebenes Quantum Arbeit kostet. In bezug auf die Bewegung der Warenpreise überhaupt gelten die früher entwickelten Gesetze des einfachen relativen Wertausdrucks.

Despite the differences between simple equivalent and general equivalent, value changes affect both forms in the same way. These laws were developed earlier, starting 63:3. ↓ A brief summary shows that the application of these laws gives interesting results:

108:4/o A general rise in the prices of commodities can result either from a rise in their values, which happens when the value of money remains constant, or from a fall in the value of money, which happens when the values of commodities remain constant. The process also occurs in reverse: a general fall in prices can result either from a fall in the values of commodities, if the value of money remains constant, or from a rise in the value of money, if the values of commodities remain constant.

114:2 Die Warenpreise können nur allgemein steigen, bei gleichbleibendem Geldwert, wenn die Warenwerte steigen; bei gleichbleibenden Warenwerten, wenn der Geldwert fällt. Umgekehrt. Die Warenpreise können nur allgemein fallen, bei gleichbleibendem Geldwert, wenn die Warenwerte fallen; bei gleichbleibenden Warenwerten, wenn der Geldwert steigt.

A change in the price of a commodity evenly depends on both the value of the money and the value of the commodity. Those who worry about the variability of the value of money should therefore also consider the variability of the values of ordinary commodities:

It therefore by no means follows that a rise in the value of money necessarily implies a proportional fall in the prices of commodities, or that a fall in the value of money implies a proportional rise in prices. This would hold only for commodities whose value remains constant. But commodities whose value rises simultaneously with and in proportion to that of money would retain the same price. And if their value rose either slower or faster than that of money, the fall or rise in their prices would be determined by the difference between the path described by their value and that described

Es folgt daher keineswegs, daß steigender Geldwert proportionelles Sinken der Warenpreise und fallender Geldwert proportionelles Steigen der Warenpreise bedingt. Dieses gilt nur für Waren von unverändertem Wert. Solche Waren z.B., deren Wert gleichmäßig und gleichzeitig steigt mit dem Geldwert, behalten dieselben Preise. Steigt ihr Wert langsamer oder rascher als der Geldwert, so wird der Fall oder das Steigen ihrer Preise bestimmt durch die Differenz zwischen ihrer Wertbewegung und der des Geldes usw.

by the value of money. And so on.

↑ As productivity rises, a given amount of gold represents less and less labor-time. This does not impair the ability of gold to function as measure of value because ordinary commodities also represent less and less labor-time. On the contrary, the variability of the value of money is an advantage, since prices remain more stable if gold takes part in the general development of productivity. This concludes Marx's reasoning that the variability in the value of gold does not impair its function as measure of value, but on the contrary even enhances it.

Question 511 *If the value of gold changes over time, does this impair its role as standard of prices? Does it impair its role as measure of value?* 2013fa, 2012fa, 2011fa, 2009fa, 2008fa, 2007fa, 2001fa.

3.1.f. [Separation of Money Names from Weight Names]

109:1 Let us now return to our investigation of the price form.

114:3 Kehren wir nun zur Betrachtung der Preisform zurück.

After this short digression to clarify the distinction between measure of value and standard of prices, let us see now what the new determination of the equivalent as standard of prices does to the relative value form of the commodities, i.e., what this new determination of money does to prices. This is back-and-forth step (4): Price is no longer expressed in quantities of gold (measured by weight) but in money names. Price is therefore a concatenated sign: Money names are signs for certain quantities of the use-value "gold." And the use-value "gold" is a sign for the General equivalent form occupied by gold always and everywhere and exclusively.

This step can be divided into two substeps. First substep: the names in which prices are denoted no longer coincide with the weight names of the money commodity but become special words only used for units of the money commodity. This requires special scrutiny because it is the development of a form which mystifies its content. If it is true that prices are equivalent quantities of gold, why are they not called this? As in the discussion starting in 540:2, Marx describes here the historical circumstances facilitating the transition from a truer form to a more mystified form.

For various reasons, the money names of the metal weights gradually diverge from their original weight-names. The historically decisive reasons are:

114:4/o Die Geldnamen der Metallgewichte trennen sich nach und nach von ihren ursprünglichen Gewichtsnamen aus verschiedenen Gründen, darunter historisch entscheidend:

(1) Introduction of foreign money:

(1) The introduction of foreign money among less developed peoples. This happened at Rome in its early days, where gold and silver coins circulated at first as foreign commodities. The names of these foreign coins were different from those of the indigenous weights.

1. Einführung fremden Geldes bei minderentwickelten Völkern, wie z.B. im alten Rom Silber- und Goldmünzen zuerst als ausländische Waren zirkulierten. Die Namen dieses fremden Geldes sind von den einheimischen Gewichtsnamen verschieden.

(2) Switch from copper to silver to gold money.

(2) With the development of material wealth, the more precious metal extrudes the less

2. Mit der Entwicklung des Reichtums wird das minder edle Metall durch das edlere

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precious from its function as measure of value. Silver drives out copper, gold drives out silver, however much this sequence may contradict the chronology of the poets.⁵⁶ The word “pound,” for instance, was the money-name given to an actual pound weight of silver. As soon as gold had driven out silver as a measure of value, the same name became attached to, say, one fifteenth of a pound of gold, depending on the ratio between the values of gold and silver. Pound as a moneyname and pound as the ordinary weight-name of gold are now two different things.⁵⁷

⁵⁶ In any case, its historical validity is not entirely universal.

aus der Funktion des Wertmaßes verdrängt. Kupfer durch Silber, Silber durch Gold, so sehr diese Reihenfolge aller poetischen Chronologie widersprechen mag.⁵⁶ Pfund war nun z.B. Geldname für ein wirkliches Pfund Silber. Sobald Gold das Silber als Wertmaß verdrängt, hängt sich derselbe Name vielleicht an 1/15 usw. Pfund Gold, je nach dem Wertverhältnis von Gold und Silber. Pfund als Geldname und als gewöhnlicher Gewichtsname des Goldes sind jetzt getrennt.⁵⁷

⁵⁶ Sie ist übrigens auch nicht von allgemein historischer Gültigkeit.

Question 512 What does Marx mean with footnote 7 to 193:3/o?

⁵⁷ Thus the pound sterling denotes less than one-third of its original weight, the ‘pound scots’ before the union, only one 36th, the French livre one 74th, the Spanish maravedi, less than one 1,000th, and the Portuguese rei a still smaller fraction.

⁵⁷ Note zur 2. Ausg. So bezeichnet das englische Pfund weniger als ein Drittel seines ursprünglichen Gewichts, das schottische Pfund vor der Union nur noch 1/36, der französische Livre 1/74, der spanische Maravedi weniger als 1/1000, der portugiesische Rei eine noch viel kleinere Proportion.

(3) Currency Debasement

(3) Centuries of continuous debasement of the currency by kings and princes have in fact left nothing behind of the original weights of gold coins but their names.⁵⁸

⁵⁸ ‘The coins which today have a merely ideal denomination are in all nations the oldest; once upon a time they were all real, and because they were real people reckoned with them’ [Gal03, p. 153].

3. Die Jahrhunderte fortgesetzte Geldfälschung der Fürsten, welche vom ursprünglichen Gewicht der Geldmünzen in der Tat nur den Namen zurückließ.⁵⁸

⁵⁸ Note zur 2. Ausg. „Die Münzen, deren Namen heute nur noch ideell sind, sind bei allen Nationen die ältesten; sie alle waren einst real, und eben weil sie real waren, hat man mit ihnen gerechnet.“ [Gal03, p. 153].

One should expect now that Marx goes back to the relative form of value, in order to look at the corresponding modifications in the price form. But he first gives a little more detail about what happens to the equivalent form when the money commodity obtains the function as standard of prices. In the first paragraph a historical fact about the measuring unit is quoted: it separates itself from the weight name.

109:3/o These historical processes have made the separation of the money-name from the weight-name into a fixed popular custom. Since the standard of money is on the one hand purely conventional, while on the other hand it must possess universal validity, it is in the end regulated by law.

115:1 Diese historischen Prozesse machen die Trennung des Geldnamens der Metallgewichte von ihrem gewöhnlichen Gewichtsnamen zur Volksgewohnheit. Da der Geldmaßstab einerseits rein konventionell ist, andererseits allgemeiner Gültigkeit bedarf, wird er zuletzt gesetzlich reguliert.

↑ Role of the state: on the one hand the monetary unit is purely conventional, on the other it must have general validity, therefore regulated by law. The economic determinations are such that they require conscious intervention.

A given weight of one of the precious metals, an ounce of gold for instance, becomes officially divided into aliquot parts, baptized by the law as a pound, a thaler, etc. These aliquot parts, which then serve as the actual units of money, are subdivided into other aliquot parts with legal names, such as a shilling, a penny etc.⁵⁹ But, despite this, a definite weight of metal remains the standard of metallic money. All that has changed is the subdivision and the denomination of the money.

⁵⁹ David Urquhart remarks in his 'Familiar Words' [Urq55, p. 105] on the monstrosity (!) that nowadays a pound (sterling), which is the unit of the English standard of money, is equal to about a quarter of an ounce of gold. 'This is falsifying a measure, not establishing a standard.' In this 'false denomination' of the weight of gold, he finds what he finds everywhere else, the falsifying hand of civilization.

110:1 The prices, or quantities of gold, into which the values of commodities are ideally changed, are therefore now expressed in the money-names, or the legally valid names of the subdivisions of the gold standard made for the purpose of reckoning. Hence, instead of saying that a quarter of wheat is worth an ounce of gold, people in England would say that it was worth £3 17s. 10 1/2d. In this way commodities tell each other by their money-names how much they are worth, and money serves as money of account whenever it is a question of fixing a thing as a value and therefore in its money form.⁶⁰

⁶⁰ 'When Anacharsis was asked what the Greeks used money for, he replied: for reckoning' (Athenaeus, *Deipnosophistae*, Bk IV, 49, v. 2, ed. Schweighäuser, 1802)

Ein bestimmter Gewichtsteil des edlen Metalls, z.B. eine Unze Gold, wird offiziell abgeteilt in aliquote Teile, die legale Taufnamen erhalten, wie Pfund, Taler usw. Solcher aliquote Teil, der dann als die eigentliche Maßeinheit des Geldes gilt, wird untergeteilt in andre aliquote Teile mit gesetzlichen Taufnamen, wie Shilling, Penny etc.⁵⁹ Nach wie vor bleiben bestimmte Metallgewichte Maßstab des Metallgeldes. Was sich geändert, ist Einteilung und Namengebung.

⁵⁹ Note zur 2. Ausg. Herr David Urquhart bemerkt in seinen „Familiar Words“ über das Ungeheuerliche (!), daß heutzutage ein Pfund (£ St.), die Einheit des englischen Geldmaßstabs, gleich ungefähr 1/4 Unze Gold ist: „Das ist Fälschung eines Maßes und nicht Festsetzung eines Maßstabs“ [Urq55, p. 105]. Er findet in dieser „falschen Benennung“ des Goldgewichts wie überall sonst die fälschende Hand der Zivilisation.

115:2 Die Preise, oder die Goldquanta, worin die Werte der Waren ideell verwandelt sind, werden jetzt also ausgedrückt in den Geldnamen oder gesetzlich gültigen Rechenamen des Goldmaßstabs. Statt also zu sagen, der Quarter Weizen ist gleich einer Unze Gold, würde man in England sagen, er ist gleich 3 Pfd.St. 17 sh. 10 1/2 d. Die Waren sagen sich so in ihren Geldnamen, was sie wert sind, und das Geld dient als Rechengeld, sooft es gilt, eine Sache als Wert und daher in Geldform zu fixieren.⁶⁰

⁶⁰ Note zur 2. Ausg. „Als man den Anacharsis fragte, wozu die Hellenen das Geld brauchen, antwortet er: zum Rechnen.“ (Athen[aeus], „Deipn[osophistae]“, I. IV, 49, v. 2 [p. 120], ed. Schweighäuser, 1802.)

Here Marx finally says what happens to the relative form of value, the prices, after the equivalent form developed into a standard of price. They are expressed in money names (i.e., people do not even know anymore that prices represent certain quanta of gold). Therefore,

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by back-and-forth step (5), money is transformed into money of account.

110:2/o The name of a thing is altogether external to its nature. I know nothing of a man if I merely know his name is Jacob. In the same way, every trace of the value relation disappears in the money names pound, thaler, franc, ducat, etc. It adds to the confusion about the hidden meaning of these cabalistic signs that these money names express both the values of commodities and, simultaneously, proportional parts of a certain weight of metal, namely of that amount of metal which serves as the standard of money.⁶¹ On the other hand, it is in fact necessary that value, as opposed to the multifarious objects of the world of commodities, should develop into this form which is objective and gives no hint at its conceptual origin, but which is also a simple social form.⁶²

115:3/o Der Name einer Sache ist ihrer Natur ganz äußerlich. Ich weiß nichts vom Menschen, wenn ich weiß, daß ein Mensch Jacobus heißt. Ebenso verschwindet in den Geldnamen Pfund, Taler, Franc, Dukat usw. jede Spur des Wertverhältnisses. Die Wirre über den Geheimsinn dieser kabbalistischen Zeichen ist um so größer, als die Geldnamen den Wert der Waren und zugleich aliquote Teile eines Metallgewichts, des Geldmaßstabs, ausdrücken.⁶¹ Andererseits ist es notwendig, daß der Wert im Unterschied von den bunten Körpern der Warenwelt sich zu dieser begriffslos sachlichen, aber auch einfach gesellschaftlichen Form fortentwickle.⁶²

Fowkes translates “*Wirre über den Geheimsinn dieser kabbalistischen Zeichen*” as “confusion caused by

attributing a hidden meaning to these cabalistic signs” “*begriffslos sachlich*” as “material and

nonmental”. These translations are clearly wrong.

⁶¹ ‘Because as standard of price gold is expressed by the same names of account as the prices of commodities—for example £3 17s. 10 d. may denote an ounce of gold just as well as a ton of iron—these names of account are called the mint-price of gold. Thus the strange notion arose that gold is estimated in its own material and that, unlike all other commodities, its price is fixed by the State. The establishing of names of account for definite weights of gold was mistaken for the establishing of the value of these weights’ (Karl Marx, op. cit., p. 52) [English edition, p. 74].

⁶¹ Note zur 2. Ausg. „Weil das Gold als Maßstab der Preise in denselben Rechnennamen erscheint wie die Warenpreise, also z.B. eine Unze Gold ebensowohl wie der Wert einer Tonne Eisen in 3 Pfd.St. 17 sh. 10 1/2 d. ausgedrückt wird, hat man diese seine Rechnennamen seinen Münzpreis genannt. Die wunderliche Vorstellung entstand daher, als ob das Gold (resp. Silber) in seinem eignen Material geschätzt werde und im Unterschied von allen Waren von Staats wegen einen fixen Preis erhalte. Man versah die Fixierung von Rechnennamen bestimmter Goldgewichte für Fixierung des Werts dieser Gewichte.“ (Karl Marx, l.c. p. 52.)

This is a quote from *Contribution*, 312:2/oo.

⁶² Cf. ‘Theories of the Standard of Money’, in *Zur Kritik etc.*, pp. 53 ff. [English edition, pp. 76 ff.]. Some theorists had fantastic notions of raising or lowering the ‘mint-price’ of money by getting the state to transfer to greater or smaller weights of gold or silver the names already legally appropriated to fixed weights of those metals, so that for example 1/4 ounce of gold could be minted into 40 shillings in the future instead of 20. However, Petty dealt with

⁶² Vgl. „Theorien von der Maßeinheit des Geldes“ in „Zur Kritik der Pol. Oekon. etc.“, p. 53 sqq. Die Phantasien über Erhöhung oder Erniedrigung des „Münzpreises“, die darin besteht, die gesetzlichen Geldnamen für gesetzlich fixierte Gewichtsteile Gold oder Silber auf größere oder kleinere Gewichtsteile von Staats wegen zu übertragen und demgemäß auch etwa 1/4 Unze Gold statt in 20 künftig in 40 sh. zu prägen—diese Phantasien, soweit sie nicht un-

these so exhaustively in his *Quantulumcunque Concerning Money: To the Lord Marquis of Halifax*, 1682, at least in those cases where they aimed not at clumsy financial operations against public and private creditors but rather at economic quack remedies, that even his immediate followers, Sir Dudley North and John Locke, not to mention later ones, could only repeat in more shallow terms what he had said. ‘If the wealth of a nation,’ he remarks, ‘could be increased ten times by a proclamation, it were strange that such proclamations have not long since been made by our Governors’ (Petty, op. cit., p. 36).

geschickte Finanzoperationen gegen Staats und Privatgläubiger, sondern ökonomische „Wunderkuren“ bezwecken, hat Petty so erschöpfend behandelt in „Quantulumcunque concerning Money. To the Lord Marquis of Halifax, 1682“, daß schon seine unmittelbaren Nachfolger, Sir Dudley North und John Locke, von späteren gar nicht zu reden, ihn nur verflachen konnten. „Wenn der Reichtum einer Nation“, sagt er u.a., „durch eine Verordnung verzehnfacht werden könnte, wäre es eigenartig, daß unsere Regierungen nicht schon längst derartige Verordnungen erlassen haben.“ (l.c. p. 36.)

With money of account we are back on the side of the equivalent. A name is an example of a form extraneous to its content. Fetish character of this highest developed form. Necessity of this.

This is the climax of this section. When Marx returns now to the relative form of value, he no longer pushes the derivation of the price form forward, but he discusses the (qualitative and quantitative) discrepancies, incongruities, between value and price.

Question 514 *At the beginning of chapter Three, pages 188–195:1 Marx shows how the development of the equivalent form of value causes the relative form of value to develop, and this again acts on the equivalent form, and this acts back, etc. Shortly describe the steps of this back-and-forth motion.*

3.1.g. [Incongruities between Value and Price]

First quantitative incongruity. This is what we called back-and-forth step (6a).

111:1–112:0 The price of a commodity is the money name of the labor objectified in it. It is therefore a tautology to say that the commodity, and the amount of money named by its price, are equivalents.⁶³ The relative expression of the value of a commodity is always the expression of the equivalence of two commodities.

116:1/o Der Preis ist der Geldname der in der Ware vergegenständlichten Arbeit. Die Äquivalenz der Ware und des Geldquantums, dessen Name ihr Preis ist, ist daher eine Tautologie,⁶³ wie ja überhaupt der relative Wertausdruck einer Ware stets der Ausdruck der Äquivalenz zweier Waren ist.

⁶³ ‘Or indeed it must be admitted that a million in money is worth more than an equal value in commodities’ (Le Trosne, op. cit., p. 919), and hence ‘that one value is worth more than another value which is equal to it’.

⁶³ „Oder man muß schon zugeben, daß eine Million in Geld mehr wert ist als ein gleicher Wert in Waren“ (Le Trosne, l.c. p. 919), also „daß ein Wert mehr wert ist als ein gleicher anderer.“

↑ If I express the magnitude of the value of a commodity in money, then it follows tautologically that this amount of money is exchangeable (Marx uses: equivalent) with the commodity (because this is exactly how I express the value of my commodity). ↓ However the opposite does not follow: if a commodity is exchangeable for a certain amount of money, this amount of money need not necessarily be an expression of the value of that commodity. (For instance in a fire sale, it may be the expression of the financial distress of its owner.) Let’s try an illustration: if the weather is good, people will take a walk on the beach. However that there are many people on the beach does not necessarily mean that the weather is

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good (it may be July 4th or D-day).

But although price, being the exponent of the magnitude of a commodity's value, is the exponent of its exchange ratio with money, it does not follow that the exponent of its exchange ratio is necessarily the exponent of the magnitude of the commodity's value.

↑ Exponent = that which exposes, indicator.

There is no mechanism which causes the value of those things to rise that are traded at a high price. On the contrary.

There is a fundamental asymmetry between form and content. While the content has to express itself in the form, the form may also incorporate extraneous influences. This is due to the openness of the world and, more specifically, in the social realm, due to the fact that societies are composed of individuals who make their own decisions. Other influences may be active which override the economic laws which Marx is developing here.

The law that values express their magnitude in the quantity of prices is therefore only a tendential law. The socially necessary labor-time in a commodity is the most enduring factor regulating its exchange-relation with money, but this exchange-relation may also be influenced by factors that have nothing to do with labor-time.

Suppose equal quantities of socially necessary labor are represented by 1 quarter of wheat and £2 (approximately 1/2 ounce of gold), respectively. £2 is the expression in money of the magnitude of the value of the quarter of wheat. It is its price. If circumstances now allow this price to be raised to £3, or compel it to be reduced to £1, then although £1 and £3 may be too small or too large to give proper expression to the magnitude of the wheat's value, they are nevertheless prices of the wheat, for they are, in the first place, the form of its value, i.e. money, and, in the second place, the exponents of its exchange-ratio with money. If the conditions of production, or the productivity of labor, remain constant, the same amount of social labor-time must be expended on the reproduction of a quarter of wheat, both before and after the change in price. This situation is not dependent on the will of the wheat producer or that of the owners of the other commodities. The magnitude of the value of a commodity therefore expresses a necessary relation to social labor-time which is inherent in the process by which the commodity is produced.

Wenn aber der Preis als Exponent der Wertgröße der Ware Exponent ihres Austauschverhältnisses mit Geld, so folgt nicht umgekehrt, daß der Exponent ihres Austauschverhältnisses mit Geld notwendig der Exponent ihrer Wertgröße ist.

Gesellschaftlich notwendige Arbeit von gleicher Größe stelle sich in 1 Quarter Weizen und in 2 Pfd.St. (ungefähr 1/2 Unze Gold) dar. Die 2 Pfd.St. sind Geldausdruck der Wertgröße des Quarter Weizens, oder sein Preis. Erlauben nun die Umstände, ihn zu 3 Pfd.St., oder zwingen sie, ihn zu 1 Pfd.St. zu notieren, so sind 1 Pfd.St. und 3 Pfd.St. als Ausdrücke der Wertgröße des Weizens zu klein oder zu groß, aber sie sind dennoch Preise desselben, denn erstens sind sie seine Wertform, Geld, und zweitens Exponenten seines Austauschverhältnisses mit Geld. Bei gleichbleibenden Produktionsbedingungen oder gleichbleibender Produktivkraft der Arbeit muß nach wie vor zur Reproduktion des Quarter Weizen gleich viel gesellschaftliche Arbeitszeit verausgabt werden. Dieser Umstand hängt vom Willen weder des Weizenproduzenten noch der andren Warenbesitzer ab. Die Wertgröße der Ware drückt also ein notwendiges, ihrem Bildungsprozeß immanentes Verhältnis zur gesellschaftlichen Arbeitszeit aus.

The socially necessary labor-time in a commodity cannot be changed by decree, and also

not by the exchange decisions of the commodity traders; this is why Marx calls the magnitude of value a “necessary relation.” Exchange relations however *can* be changed by voluntary acts. People are free to exchange things at exchange relations that do not conform with the value relations, but they cannot change those value relations themselves.

With the transformation of the magnitude of value into the price, this necessary relation appears as the exchange ratio between a given commodity and the money commodity which exists outside it. In this relation, however, not only the magnitude of value of the commodity may express itself, but also the greater or lesser quantity in which it can be sold under the given circumstances. The possibility, therefore, of a quantitative incongruity between price and magnitude of value, i.e. the possibility that the price may diverge from the magnitude of value, is inherent in the price form itself.

Mit der Verwandlung der Wertgröße in Preis erscheint dies notwendige Verhältnis als Austauschverhältnis einer Ware mit der außer ihr existierenden Geldware. In diesem Verhältnis kann sich aber ebensowohl die Wertgröße der Ware ausdrücken, als das Mehr oder Minder, worin sie unter gegebenen Umständen veräußerlich ist. Die Möglichkeit quantitativer Inkongruenz zwischen Preis und Wertgröße, oder der Abweichung des Preises von der Wertgröße, liegt also in der Preisform selbst.

↑ Marx argues that such incongruity is inherent in the form of value because price is the *exterior* expression of the *immanent* value, and this exterior expression is open to other influences as well.

↓ But then he goes further and says this discrepancy between value and price is not a defect but a necessity for private commodity production.

This is not a defect but, on the contrary, it makes this form the adequate form for a mode of production whose laws can only assert themselves as the blindly operating law of averages of constant irregularities.

Es ist dies kein Mangel dieser Form, sondern macht sie umgekehrt zur adäquaten Form einer Produktionsweise, worin sich die Regel nur als blindwirkendes Durchschnittsgesetz der Regellosigkeit durchsetzen kann.

These deviations of value and price are the mechanism by which the general necessities of the general division of labor are imposed on the individual producers and consumers.

Question 515 *Why is it not a defect but a sign that the price form is “admirably” adapted to commodity production, as the Moore-Aveling translation says, that prices can deviate from values due to demand and supply?* 2012fa, 2011fa, 2010fa.

This is already the second thing which looks like a flaw but which turns out to be necessary: after the variability of the value of gold now also the deviation of commodity prices from their values.

Exam Question 516 *Which two aspects of the function of money as a measure of value first look like flaws but on a closer look turn out to be necessary? Also briefly explain why they are necessary.* 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007SP, 2005fa, 2004fa, 2003fa.

Next comes what we called back-and-forth step (6b):

112:1 The price-form, however, is not only compatible with the possibility of a quantitative incongruity between magnitude

117:1 Die Preisform läßt jedoch nicht nur die Möglichkeit quantitativer Inkongruenz zwischen Wertgröße und Preis, d.h.

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of value and price, i.e. between the magnitude of value and its own expression in money, but it may also harbor a qualitative contradiction, with the result that price ceases altogether to express value, despite the fact that money is nothing but the value form of commodities. Things which in and for themselves are not commodities, things such as conscience, honor, etc., can be offered for sale by their holders, and thus acquire the form of commodities through their price. Hence a thing can, formally speaking, have a price without having a value. The expression of price is in this case imaginary, like certain quantities in mathematics. On the other hand, the imaginary price-form may also conceal a real value-relation or one derived from it, as for instance the price of uncultivated land, which is without value because no human labor is objectified in it.

zwischen der Wertgröße und ihrem eignen Geldausdruck zu, sondern kann einen qualitativen Widerspruch beherbergen, so daß der Preis überhaupt aufhört, Wertausdruck zu sein, obgleich Geld nur die Wertform der Waren ist. Dinge, die an und für sich keine Waren sind, z.B. Gewissen, Ehre usw., können ihren Besitzern für Geld feil sein und so durch ihren Preis die Warenform erhalten. Ein Ding kann daher formell einen Preis haben, ohne einen Wert zu haben. Der Preisausdruck wird hier imaginär wie gewisse Größen der Mathematik. Andererseits kann auch die imaginäre Preisform, wie z.B. der Preis des unkultivierten Bodens, der keinen Wert hat, weil keine menschliche Arbeit in ihm vergegenständlicht ist, ein wirkliches Wertverhältnis oder von ihm abgeleitete Beziehung verbergen.

After the quantitative now the qualitative incongruity: once the price-form of commodities is developed, also things which do not have a value can obtain a price.

This possibility, that things can obtain a price from circulation, is also expressed in 142:2:

“Since money does not reveal what has been converted into it, everything, commodity or not, is convertible into money.”

Here is also a relevant passage from the Wage chapter:

In the expression ‘value of labor’, the concept of value is not only altogether extinguished, but it is turned into its opposite. It an imaginary expression, like, say, ‘value of the earth’. However these imaginary expressions arise from the relations of production themselves. They are categories for the forms of appearance of essential relations. That in their appearance things are often presented in an inverted way is something familiar in just about every science, except in political economy. (537:2).

A systematic analysis of the imaginary expressions: value of labor, value of the earth, value of money as capital (interest), etc., will be given in Part VI of *Capital I* and Part VII of *Capital III*.

The comparison with imaginary numbers will also be taken up in chapter Nineteen, p. 537:2.

On the other hand, such a price may still hide an underlying value relation. That the price of labor hides the value of labor-power is the most prominent example here, this will be discussed on p. 1125 below. Other examples: price of land hides ground rent, capitalization gives a fictitious value to a claim on an income, etc.

In *Resultate*, Marx gives a slightly stronger argument, claiming that every price *must* be reducible to value:

Every *price* must be reducible to a *value*, because price, in and for itself, is nothing but the monetary expression of value. The circumstance that the actual

price of a commodity may stand above or below the level corresponding to its value does not alter the fact that prices are an expression of the values of the commodities, even though the expression is in this case *quantitatively* too large or too small—quantitatively incongruent. But here in the *price of labor* the lack of congruence is *qualitative*.

Question 518 Discuss the phenomena which Marx refers to as “quantitative and qualitative incongruities between price and value” 2011fa, 2007fa, 2007SP, 2004fa, 2003fa, 1998WI.

3.1.h. [From Measure of Value to Means of Circulation]

In order to make the transition to the function of money as means of circulation, Marx looks at what the price tag means operationally. This is the final back-and-forth step (7). If the price of one ton of iron is one ounce of gold, then this obligates the owner of iron to give one ton of iron for each ounce of gold the gold owner is willing to pay (as long as the owner of iron has this much iron in stock, and there may be other circumstances where this obligation is voided). Marx says that one ounce of gold is “directly exchangeable for iron:”

112:2/o Just as any other relative form of value, the price is the expression of the value of a commodity. It expresses the value of a ton of iron, for instance, by asserting that a given quantity of the equivalent, an ounce of gold for instance, is directly exchangeable with iron. But the price form by no means asserts the converse, that iron is directly exchangeable with gold.

117:2/o Wie die relative Wertform überhaupt, drückt der Preis den Wert einer Ware, z.B. einer Tonne Eisen, dadurch aus, daß ein bestimmtes Quantum Äquivalent, z.B. eine Unze Gold, unmittelbar austauschbar mit Eisen, aber keineswegs umgekehrt, daß seinerseits das Eisen unmittelbar austauschbar mit Gold ist.

↑ Marx throws in the remark that the price tag does not make iron directly exchangeable for gold. Every child knows that the owner of iron cannot approach the owner of money and demand one ounce of gold for each ton of iron the iron owner is willing to give him. Why does Marx mention here this trivial fact? Because the producer of iron finds himself exactly in the position of having to exchange his iron for all other commodities, i.e., for him, iron must indeed serve as the general equivalent. Marx said this already in 96:3–97:0a. At that earlier point, this was posed as an impossibility (all commodities cannot be general equivalent at the same time). ↓ But now a solution presents itself: if the producers first convert their ordinary commodities into money, then they will indeed hold a general equivalent in their hands.

In order to take effect in practice as an exchange-value, the commodity must therefore divest itself of its natural physical body. It must transform itself from merely imagined gold into real gold, although this act of transubstantiation may be more ‘burdensome’ for it than the transition from necessity to freedom for the Hegelian ‘concept’, the casting of his shell for a lobster, or the putting-off of the old Adam for Saint Jerome.⁶⁴

Um also praktisch die Wirkung eines Tauschwerts auszuüben, muß die Ware ihren natürlichen Leib abstreifen, sich aus nur vorgestelltem Gold in wirkliches Gold verwandeln, obgleich diese Transsubstantiation ihr „saurer“ ankommen mag als dem Hegelschen „Begriff“ der Übergang aus der Notwendigkeit in die Freiheit oder einem Hummer das Sprengen seiner Schale oder dem Kirchenvater Hieronymus das Abstreifen des alten Adam.⁶⁴

3. Money or the Circulation of Commodities

⁶⁴ If Jerome had to wrestle hard in his youth with the material flesh, as is shown by his fight in the desert with visions of beautiful women, he had also to wrestle in his old age with the spiritual flesh. 'I thought', he says, 'I was in the spirit before the Judge of the Universe.' 'Who art thou?' asked a voice. 'I am a Christian.' 'Thou liest,' thundered back the great Judge, 'thou art nought but a Ciceronian'. [Letter XXII, Ad Eustochium].

⁶⁴ Wenn Hieronymus in seiner Jugend viel mit dem materiellen Fleisch zu ringen hatte, wie sein Wüstenkampf mit schönen Frauenbildern zeigt, so im Alter mit dem geistigen Fleisch. „Ich glaubte mich“, sagt er z.B., „im Geist vor dem Weltrichter.“ „Wer bist du?“ fragte eine Stimme. „Ich bin ein Christ.“ „Du lügst“, donnerte der Weltrichter. „Du bist nur ein Ciceronianer!“

Question 520 Why did God say St. Jerome was only a Ciceronian?

↑ Marx emphasizes here the difficulties to sell commodities which are, of course, the necessary counterpart of the ease with which money buys. ↓ Now Marx repeats on a more formal, abstract level what he just said:

Alongside its actual shape (iron, for instance), a commodity may possess a notional value shape or imagined gold shape in the form of its price, but it cannot simultaneously be both real iron and real gold. To establish its price it is sufficient for it to be equated with gold in the imagination. But to enable it to render its owner the service of a universal equivalent, it must be actually replaced by gold. If the owner of the iron were to go to the owner of some other earthly commodity, and were to refer him to the price of iron as its money form, he would receive as answer the terrestrial equivalent of the answer given by St. Peter in heaven to Dante, when the latter recited the creed: 'Right well hath now been tested this coin's alloy and weight—but tell me if thou hast it in thy purse' (Dante, *Divina Commedia*, *Paradiso*, Canto XXIV, lines 84–5)

Neben ihrer realen Gestalt, Eisen z.B., kann die Ware im Preise ideelle Wertgestalt oder vorgestellte Goldgestalt besitzen, aber sie kann nicht zugleich wirklich Eisen und wirklich Gold sein. Für ihre Preisgebung genügt es, vorgestelltes Gold ihr gleichzusetzen. Durch Gold ist sie zu ersetzen, damit sie ihrem Besitzer den Dienst eines allgemeinen Äquivalents leiste. Träte der Besitzer des Eisens z.B. dem Besitzer einer weltlustigen Ware gegenüber und verwies ihn auf den Eisenpreis, der Geldform sei, so würde der Weltlustige antworten, wie im Himmel der heilige Petrus dem Dante, der ihm die Glaubensformel hergesagt:

„Assai bene è trascorsa
D'esta moneta già la lega e'l peso,
Ma dimmi se tu l'hai nella tua borsa.“
(Dante, *Divina Commedia*, *Paradiso*, Canto XXIV, lines 84–5)

Question 521 Every child knows that a commodity cannot simultaneously be both real iron and real gold. What did Marx mean to say when he wrote this sentence in 197:2/o?

2013fa, 2011fa.

This passage brings a new aspect of the money form: in the presence of money, direct barter becomes more difficult. The dominant role of money as General equivalent deprives the other commodities of the capacity to serve as the expressions of value themselves. See 79:1! This implies that each commodity *must* be converted into money before it can act as exchange-value itself. The conclusion is: although the pricing of the commodity only required imagined money, this pricing implies that commodities must be turned into real gold in order to change hands. This gives the transition from the measure of value to the means of circulation.

3.2. Means of Circulation

113:1 The price form implies both the possibility to convert the commodities into money and the necessity of this conversion. On the other hand, gold serves as the notional measure of value only because it is already present as the money commodity in the process of exchange.

118:1 Die Preisform schließt die Veräußerlichkeit der Waren gegen Geld und die Notwendigkeit dieser Veräußerung ein. Andererseits funktioniert Gold nur als ideelles Wertmaß, weil es sich bereits im Austauschprozeß als Geldware umtreibt.

This succinct formulation leaves out many intermediary steps. The price form implies

1. the *possibility* of alienation (*Veräußerlichkeit*) of the commodity against money; i.e., the only condition necessary for someone to get the commodity is that he gives the money. Because of this possibility, commodity producers will no longer accept non-money commodities in exchange for their products. I.e., the possibility of alienation implies the
2. *necessity* of alienation (*Veräußerung*): Every commodity must be turned into money before it can be converted into other commodities. That means, the price form, which the commodities obtained without money actually being present, requires them to be exchanged against real money. Is this money available? The answer is yes, because
3. “on the other hand,” gold is the material in which commodities express their values only because gold is already present in circulation. I.e., the task implied in the price form arises together with the means to solve this task.

Question 523 *If gold serves as the notional measure of value only because it is already present as the money commodity in the process of exchange, why does Marx then say that the function of measure of value, and not the function as means of circulation, is the first function of money? 2013fa.*

In the notional measure of values lurks therefore hard cash.

Im ideellen Maß der Werte lauert daher das harte Geld.

Question 525 *Describe the relationship between the function of money as measure of value and as means of circulation in Marx’s theory and in modern mainstream monetary theories. 2011fa, 2010fa, 2008fa, 2004fa.*

3.2. Means of Circulation

While the first section of chapter Three was a continuation of the development in section 1.3 of chapter One, this second section here is a continuation of chapter Two.

3.2.a. The Metamorphosis of Commodities

The word “metamorphosis” denotes the passing of the same entity through different forms (metamorphosis of a butterfly).

[Preliminary Remarks]

To clear the terrain for his discussion of the metamorphosis of the commodity, Marx makes three preliminary remarks, two about methodology, and one about the origin of money.

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[Contradiction] Marx begins with a metaphor. Just as an elliptical orbit allows the contradictions between gravity and inertia to play themselves out, the exchange process provides a stage where the contradictions of the direct barter can play themselves out. ↓ The first sentence ties into the passage of chapter Two, pp. 95:1/o–181:1, discussing the contradictions of the direct barter and their resolution:

113:2 We saw that the process of exchanging commodities contains contradictory and mutually exclusive relationships.

118:2/o Man sah, daß der Austauschprozeß der Waren widersprechende und einander ausschließende Beziehungen einschließt.

Question 526 Which “contradictory and mutually exclusive relationships” 198:2 are, according to Marx’s analysis, contained in the process of exchanging commodities? 2013fa, 2012fa, 2011fa, 2009fa, 2008SP, 2007fa.

↓ The next sentence stresses that the development of the value forms does not *resolve* the contradictions, but merely give them room to move:

Whereas the development of the commodity does not resolve these contradictions, it provides the form in which they can move.

Die Entwicklung der Ware hebt diese Widersprüche nicht auf, schafft aber die Form, worin sie sich bewegen können.

↑ The separation of the world of commodities into ordinary commodities and money allows the barter to split into sale and purchase, which opens enough space so that the contradictory aspects of the direct barter are no longer gridlocked.

This is generally the method how real contradictions resolve themselves.

Dies ist überhaupt die Methode, worin sich wirkliche Widersprüche lösen.

↑ A true resolution of a contradiction would be a structural change which makes the contradiction go away. Marx implies here that “real” contradictions do not go away. If they find ways of actualizing themselves without erupting into a crisis, this is the closest they can come to “resolve” themselves. In order to actualize itself (or, as the translation below says, assert itself) a contradiction needs a form which allows all contradictory aspects to assert themselves. This actualization is not a resolution because the underlying contradiction still persists. For instance, the separation of the direct barter into sale and purchase is a form which allows both contradictory aspects of the barter to be achieved. But we will see in 123:1/o that the separation between sale and purchase makes *crises* possible, i.e., the contradiction still exists but now it manifests itself in a different form.

For instance, it is a contradiction that a material body constantly falls towards another and at the same time constantly flies away from it. An elliptical orbit is one of the forms of motion in which this contradiction both asserts and resolves itself.

Es ist z.B. ein Widerspruch, daß ein Körper beständig in einen andren fällt und ebenso beständig von ihm wegfieht. Die Ellipse ist eine der Bewegungsformen, worin dieser Widerspruch sich ebenso sehr verwirklicht als löst.

The Fowkes translation shifts the contradiction from the physical process to the description of the physical process: “For instance, it is a contradiction to depict a material body as constantly falling

towards another and at the same time constantly flying away from it.” And in both the sentence before and the one after it, Fowkes’s formulation is not that contradictions resolve themselves,

but they are resolved: “This is, in general, the way in which real contradictions are resolved.” “The ellipse is a form of motion within which this contradiction is both realized and resolved.”

A distinction between surface and the underlying forces is implicit in this example. Underneath, in the sphere of the real, two conflicting forces are at work: gravity which makes

bodies fall into each other, and inertia, which forces bodies to maintain the state of motion they already have. In an elliptical orbit, sometimes inertia and sometimes gravity is predominant. This is analogical to the metamorphosis of commodities, where, as we will see shortly, sometimes the use-value and sometimes the value is predominant. The example of the ellipse therefore sets the stage for Marx's investigation of the exchange process as the surface mediation of underlying contradictory tendencies.

Question 528 *Marx says in 198:2 that an elliptical orbit is one of the forms of motion in which the contradiction in physics—that a material body constantly falls towards another and at the same time constantly flies away from it—both asserts itself and resolves itself. Are there other forms of motion for this contradiction in physics?* [2013fa](#), [2012fa](#).

Question 529 *If physics yields, according to Marx, such good examples for dialectics, why are modern physicists not using dialectics?* [2012fa](#), [2010fa](#).

[Looking at the Circulation Process from the Form Side] Marx briefly mentions the material *content* of circulation—only to dispose of this aspect of circulation which is *not* of interest right now. Marx uses the term “social metabolism of use-values” for the underlying social process which is mediated by circulation. In every society with a division of labor, people do not consume their own products but the products of others. Therefore the products must change hands after they are produced.

113:3/o In so far as the process of exchange transfers commodities from hands in which they are non-use-values to hands in which they are use-values, it is a process of social metabolism. The product of one kind of useful labor replaces that of another.

119:1 Soweit der Austauschprozeß Waren aus der Hand, worin sie Nicht-Gebrauchswerte, in die Hand überträgt, worin sie Gebrauchswerte, ist er gesellschaftlicher Stoffwechsel. Das Produkt einer nützlichen Arbeitsweise ersetzt das der andren.

Not in every society is this process mediated by an *market transactions*. But the *social form* in which this transfer is carried out in a commodity-producing society is exactly the object of the present investigation. I.e., Marx investigates here the motivations, behaviors, and institutions on the surface of the economy which induce the economic agents to perform the actions necessary to keep this society-wide metabolism going. ↓ Since the content of the process is not of interest here, only its form, Marx is not looking at consumption but only at the activities in the market:

Once a commodity has arrived at a place where it can serve as use-value, it falls out of the sphere of exchange into that of consumption. Only the sphere of exchange is of interest to us here.

Einmal angelangt zur Stelle, wo sie als Gebrauchswert dient, fällt die Ware in die Sphäre der Konsumption aus der Sphäre des Warentauschs. Letztre allein interessiert uns hier.

↑ The implicit assumption here is that the act of consumption makes the product disappear. Marx does not consider the disposal of waste materials as part of the economy and does not criticize the market system for ignoring this crucial aspect of the economy. Despite the word “metabolism” in the first sentence of this paragraph, Marx does not think of the uptake of raw materials and energy from the environment and the dumping of waste materials into the environment which we connect with the concept of metabolism today. His concept of metabolism looks at the economy as a closed system.

Back to the market transactions. By selling and buying, the consumers not only satisfy their own needs, but the process of individual selling and buying is also society's way of

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transferring the products from the producers to the consumers. In different societies, this transfer is organized differently. ↓ In order to understand how this transfer is organized in capitalism, Marx looks at the process from the form side.

Therefore we must look at the whole process from the form side. The subject of our investigation is only the form change—or the metamorphosis—of commodities, which mediates the social metabolism.

Wir haben also den ganzen Prozeß nach der Formseite zu betrachten, also nur den Formwechsel oder die Metamorphose der Waren, welche den gesellschaftlichen Stoffwechsel vermittelt.

↑ Marx uses the word “only” because a look from the form side does not see the use-values but only the values. In this last sentence, the process of selling and buying is not called “exchanges” of the commodities but their “metamorphoses” or “form changes” (*Formwechsel*, meaning “switch of forms” or “migration from one form to the next”). It is important to understand what Marx means by this, therefore the reader may forgive my jumping ahead and briefly summarizing what the circulation process looks like “from the form side.”

The value forms of Commodities are, as explained in the notes at the beginning of section 3 of Chapter One, socially induced properties of the commodities. These properties are not static but circulation *changes* them. At first, the linen weaver has a commodity in her hands which is use-value for others but a non-use-value for her, for her it is only a carrier of value. (A commodity is both, use-value and value, but it comes out of the production process in its use-value form.) At the end, by contrast, the weaver has a commodity whose use-value she consumes, and whose value aspect is no longer relevant. And in the middle she has money. Marx does not consider this money a *separate* commodity (although he lived under the gold standard when money was gold), but this gold in the hands of the linen weaver now is the *direct* representation of the value of the commodity linen, which the weaver brought to market, unencumbered by any specific use-value. This pure value form is not private to the linen but shared by other commodities. If the linen weaver so desires, it becomes the pure value form which the bible printer accepts in exchange for his bible. Instead of conceptualizing the process of first selling and then buying as a process involving three commodities, the view “from the form side” conceptualizes it as a process involving three different forms of the same commodity: first use-value for others, then value unencumbered by any use-value, then use-value for its owner. This is a different description of the process than saying the weaver sells linen for \$10 and then buys a bible with this money—which is a description of the process as a succession of transactions between individuals, not from its form side.

Question 530 What does Marx mean when he says in 198:3/o: one must look at the circulation of commodities from its form side? *Answer*, [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2007SP](#), [2005fa](#).

↓ It is especially difficult to see this form change correctly because it is so easy to forget how special the gold commodity is and to mistake the transaction as a *barter transaction*. Marx stresses that a sale or purchase has a quite different character than a barter between ordinary commodities. The transaction can *not* be described as “a barter of linen for gold and then another barter of gold for coats.” The transactors’ thought processes and decision criteria are different when they make a sale or purchase than when they barter two ordinary commodities against each other.

114:1 The quite imperfect general recognition of this form change is due to the cir-

119:2 Die durchaus mangelhafte Auffassung dieses Formwechsels ist, abgesehen

cumstance that, quite apart from confusions about the concept of value itself, every form change of a commodity results from the exchange of two commodities, namely an ordinary commodity and the money commodity. If we keep in mind only this material aspect, that is, the exchange of the commodity for gold, we overlook the very thing we ought to observe, namely what has happened to the commodity form.

↓ Here is this same passage in the French edition [megaII/7]81:2 (with translation). The French is clearer than both English and German versions.

The formal aspect of this movement is a little difficult to grasp, since every form change of one commodity is brought about by the exchange of two commodities. An example of such a form change is a commodity stripping off its useful form and putting on its money form. How does this happen? By its exchange with gold. A simple exchange of two commodities, if we view it as a tangible fact; but it is necessary to look at it more closely.

Every form change of a commodity is accomplished by an *exchange* of two things, an ordinary commodity and the money commodity. Nevertheless, this form change cannot be understood if one equates it to a barter between two different commodities on the market. In a barter, the economic agents divide their attention between two commodities, that which they give away and that which they receive. In C–M–C, by contrast, the sale is exclusively devoted to the realization of the value of the commodity they have to give away, without interference of the use-value which one intends to purchase afterwards. On the other hand, the purchase is not burdened with the use-value that was sold to get the money.

↓ Here is in Marx's own words what we miss if we look at the transaction as two barterings instead of two metamorphoses of the same commodity:

We do not see that gold, as a mere commodity, is not money, and that the other commodities, through their prices, relate themselves to gold as their *own money shape*.

von Unklarheit über den Wertbegriff selbst, dem Umstand geschuldet, daß jeder Formwechsel einer Ware sich vollzieht im Austausch zweier Waren, einer gemeinen Ware und der Geldware. Hält man an diesem stofflichen Moment, dem Austausch von Ware mit Gold, allein fest, so übersieht man grade, was man sehn soll, nämlich was sich mit der Form zuträgt.

Ce côté morphologique du mouvement est un peu difficile à saisir, puisque tout changement de forme d'une marchandise s'effectue par l'échange de deux marchandises. Une marchandise dépouille, par exemple, sa forme usuelle pour revêtir sa forme monnaie. Comment cela arrive-t-il? Par son échange avec l'or. Simple échange de deux marchandises, voilà le fait palpable; mais il faut y regarder de plus près.

Man übersieht, daß Gold als bloße Ware nicht Geld ist und daß die andren Waren sich selbst in ihren Preisen auf Gold als ihre *eigene Geldgestalt* beziehen.

↑ Marx says here two things, and remember that Marx refers to the *gold standard* in existence at his time:

- Gold considered as a mere commodity (namely, the commodity which the linen weaver allegedly barter for when she exchanges 20 yards of linen for, say, £1) is not the same as gold as money. The only occasion where gold functions as a mere commodity and not as money is when the gold digger takes his gold nuggets to market to exchange for the things he or she needs. The assumption is that the person the linen weaver sells her linen to is not the gold digger.
- If 20 yards of linen = £1, then £1 is the money shape of the commodity "20 yards of linen," i.e., it is not a different commodity but still the same commodity (that's why

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Marx uses the word “own”), it is still the 20 yards of linen, but no longer in its use-value form but in its value form—to be precise, in the most developed value form, the money form.

Question 534 *The empirical appearance of the processes of sale and purchase encourages a naive mistake, described in 199:1, which makes it difficult to understand the metamorphosis of the commodity. Which mistake?* 2013fa, 2012fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007SP, 2005fa, 2004fa, 2003fa.

[The Money Confronting the Commodities] After having stressed what circulation is *not*, Marx gets ready to develop what circulation *is*. Before explaining *circulation* itself, he first explains *money*, the indispensable ingredient in every act of circulation. ↓ Marx begins with the observation that money grows out of the circulation process itself.

114:2 Commodities first enter into exchange ungilded, without a sugar coating, in their original home-grown shapes.

119:3 Die Waren gehn zunächst unvergöldet, unverzuckert, wie der Kamm ihnen gewachsen ist, in den Austauschprozeß ein.

↑ The metaphors “ungilded” and “without sugar-coating” mean: the commodities don’t have a value form yet. Right now, money, which could give them their independent value form, does not even exist yet. ↓ The next sentence introduces this money:

The process of exchange, however, produces a duplication of the commodity into commodity and money, an external opposition in which the commodities represent their immanent opposition between use-value and value.

Er produziert eine Verdopplung der Ware in Ware und Geld, einen äußeren Gegensatz, worin sie ihren immanenten Gegensatz von Gebrauchswert und Wert darstellen.

↑ A dialectical “opposition” is weaker than a dialectical contradiction, “weaker” in the sense that the opposite poles do not interpenetrate. One might translate it also with “polarity.” An “external” opposition is an opposition *between* things, while an “immanent” opposition is an opposition *within* the same thing. The “duplication” of the commodity is a reference to the social “deed” preparatory to circulation, discussed in chapter Two, 97:0b–97:1, the separation of the world of commodities into two halves, one half consisting of one commodity only, gold, and the other half consisting of all other commodities. It is a “duplication” because prior to this “deed,” there was only one kind of commodities, and now there are two kinds, the money commodity and all the other so-called “ordinary” commodities. This deed allows the immanent opposition between use-value and exchange-value in each individual commodity to be represented on the surface by the opposition between commodities and money. The same opposition, which at first is barely visible as the opposition between the Simple relative and equivalent value forms of an ordinary commodity, as discussed in 71:2, becomes more and more accentuated in the development of the Simple to the Expanded and General forms of value. In the Money form it has become visible to the plain eye, since it partitioned the world of commodities into ordinary commodities on the one side and the money commodity on the other.

In this opposition, commodities as use-values confront money as exchange-value.

In diesem Gegensatz treten die Waren als Gebrauchswerte dem Geld als Tauschwert gegenüber.

Use-value and exchange-value are aspects of the commodity, therefore one might think that the two halves of the commodity confront each other. But exchange-value cannot exist without use-value, and a use-value without exchange-value is not a commodity. Indeed in

this separation here, each half has acquired a “notional” (*ideell*) version of the missing half in order to be a full-blown commodity again:

On the other hand, both sides of this opposition are commodities, i.e., unities of use-value and value. But this unity of differences represents itself at each of the two opposite poles in an opposite way, and therefore at the same time represents their mutual interrelationship.

Andrerseits sind beide Seiten des Gegensatzes Waren, also Einheiten von Gebrauchswert und Wert. Aber diese Einheit von Unterschieden stellt sich auf jedem der beiden Pole umgekehrt dar und stellt dadurch zugleich deren Wechselbeziehung dar.

↑ Section 3 of chapter One showed the development of the value form, a second form which the commodity has in addition to their use-value form, but it did not place value form and use-value form in relation (FIXME except perhaps the passage about the contradiction between the relative and equivalent form?). Chapter Two showed that the commodity owners have to deal with both value and use-value, and that this presents contradictions for them. Now we are going to see how the value forms developed in chapter One provide a “form of motion” for these contradictions.

The commodity is in actuality a use-value—the fact that it is a value appears only notionally, in its price, that puts it in relation with gold as the actual shape of its value. On the other hand, gold counts only as the materialization of value, as money. In its actuality it is therefore exchange-value. Its use-value appears only notionally in the series of relative value-expressions, through which it refers to all other commodities as the scope of its actual useful shapes.

Die Ware ist reell Gebrauchswert, ihr Wertsein erscheint nur ideell im Preis, der sie auf das gegenüberstehende Gold als ihre reelle Wertgestalt bezieht. Umgekehrt gilt das Goldmaterial nur als Wertmateriat, Geld. Es ist reell daher Tauschwert. Sein Gebrauchswert erscheint nur noch ideell in der Reihe der relativen Wertausdrücke, worin es sich auf die gegenüberstehenden Waren als den Umkreis seiner reellen Gebrauchsgestalten bezieht.

↑ This means, the use-value of gold for filling teeth is ignored. The French edition of *Capital*, [megaII/7]81:3, explains very well how the relation between commodity and money differs from that between two ordinary commodities:

Gold occupies one pole, and all the useful articles the opposite pole. On both sides are commodities, unities of use-value and exchange-value. But this unity of opposites is, on these two extremes, represented in two manners inverse to each other. The useful form of the commodity is its actual form, while its exchange-value is expressed only notionally, in imagined gold, by its price. By contrast, the natural, metallic form of gold is the form of its general exchangeability, its value form, while its use-value is only notionally expressed in the series of commodities acting as its equivalents. That is why a commodity, when it is exchanged against gold, changes at the same time its useful form into its value form. When gold

L’or occupe un pôle, tous les articles utiles le pôle opposé. Des deux côtés, il y a marchandise, unité de valeur d’usage et de valeur d’échange. Mais cette unité de contraires se représente inversement aux deux extrêmes. La forme usuelle de la marchandise en est la forme réelle, tandis que sa valeur d’échange n’est exprimée qu’idéalement, en or imaginé, par son prix. La forme naturelle, métallique de l’or est au contraire sa forme d’échangeabilité générale, sa forme valeur, tandis que sa valeur d’usage n’est exprimée qu’idéalement dans la série des marchandises qui figurent comme ses équivalents. Or, quand une marchandise s’échange contre de l’or, elle change du même coup sa forme usuelle en forme valeur. Quand

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is exchanged against a commodity, then it changes, with that, its value form into a useful form.

l’or s’échange contre une marchandise, il change de même sa forme valeur en forme usuelle.

In comparison with the French, the German and English editions contain additional information. They are overloaded and therefore more difficult to read. At the beginning of the paragraph, the remark is added that this exterior opposition commodity–money is a product of the exchange process and represents the interior opposition use-value–exchange-value in every commodity. The German edition has the following additional sentence at the end:

These opposite forms of the commodities are the actual forms of motion of the process of exchange.

Diese gegensätzlichen Formen der Waren sind die wirklichen Bewegungsformen ihres Austauschprozesses.

↑ I.e., during the exchange process the commodity moves through these opposite forms. The formulation of this sentence makes it parallel to the example of the ellipse in 113:2. It asserts the applicability of the ellipse example to the commodity circulation by the parallel use of the word “form of motion.”

Note that Marx does *not* describe the separation of barter into sale and purchase as a device deliberately introduced by the market participants in order to resolve the practical difficulties of direct barter. Rather, money has been introduced as a surface expression of the relations of production. While production uses equal abstract human labor as its measure, money is the measuring stick visible on the surface which motivates and informs individual actions in such a way that their competition leads to the equalization of their labors. Money contains the contradictions between use-value and exchange-value in crystallized form, while the metamorphosis of commodities plays out these contradictions in fluid form. Now we are ready to discuss this fluid form.

This is the end of the preliminary remarks, as indicated in the French edition, where the next paragraph [megaII/7]81:4 begins with the words: “After these preliminary remarks . . .”

[Practical Actions of the Individual Traders and their “Form Skeleton”]

After showing the inner connection of the two way stations of the circulation process, money and ordinary commodity, Marx discusses now the process itself. He first looks at sale and purchase individually, then at their unity, then at their result. He goes through this pattern several times in chapters Three and Four.

These annotations here will show that Marx looks at the circulation process under five different angles.

[(P)] Marx describes certain practical actions of individuals on the surface of the economy.

[(M)] Marx draws conclusions from these practical actions about the motivations of the persons performing these circulation acts, sometimes with the words that he is exploring the “purpose” or “aim” of these circulation acts.

[(F)] Marx re-describes these actions as changes in the commodity forms, usually with the words that he is looking at the “form” of circulation.

[(G)] Usually, a look at the form abstracts from the quantities, since quantitative differences do not lead to different forms. But in Chapter Four, Marx finds it necessary to deviate from this and to look at form with quantity included (Marx calls this the “complete form”). Therefore our classification reserves a place for this already now, although right now Marx explicitly ignores the quantities when he looks at forms.

[(D)] Finally, Marx looks at the underlying social relations which make these surface activities possible and at the same time are sustained by them. This he calls the “content” of

the circulation process.

These levels are connected in specific ways. Level [(P)] allows us to make inferences about level [(M)], and levels [(F)] and [(G)] allow us to make inferences about level [(D)]. Marx never makes inferences directly from [(P)] to level [(D)] but always goes through levels [(F)] and [(G)]. In other words, if one wants to see how the practical surface activities of individuals are rooted in the sphere of production, one has to look at them from the form side.

Question 535 *Generally Marx is making inferences from the practical economic surface activities of individuals down to the social relations of production which make these activities necessary and possible. But he never makes these inferences directly; he always first re-describes the surface activities “from the form side.” Explain what it means to look at a surface activity from the form side, and give your best reasons why Marx uses the form side of the surface activities as an intermediate step when he tries to illuminate the underlying hidden relations of production. 2012fa.*

In chapter Three, the content of C–M–C is obvious and needs little discussion. By contrast, in chapter Four, when Marx studies M–C–M instead of C–M–C, the main purpose of Marx’s development will be to derive the content of M–C–M.

114:3/o Let us now accompany the owner of some commodity, say our old friend the linen weaver, to the scene of action, the market. Her commodity, 20 yards of linen, has a definite price, £2.

119:4/o Begleiten wir nun irgendeinen Warenbesitzer, unsren altbekannten Leinweber z.B., zur Szene des Austauschprozesses, dem Warenmarkt. Seine Ware, 20 Ellen Leinwand, ist preisbestimmt. Ihr Preis ist 2 Pfd.St.

↑ I.e., the linen weaver finds this price on the market. ↓ First a description of her transaction on level [(P)]:

She exchanges it for the £2, and then, being a woman of the old school, she parts with the £2 in return for a family Bible of the same price.

Er tauscht sie aus gegen 2 Pfd.St. und, Mann von altem Schrot und Korn, tauscht die 2 Pfd.St. wieder aus gegen eine Familienbibel vom selben Preis.

↑ Marx uses the word “exchange” because he describes the practical actions, i.e., he is on level [(P)]. But remember in 114:1 Marx said that, although it was physically two exchanges between three things—linen, money, and Bible—it should be considered two form changes of one commodity which originally has the use-value form of linen, rather than two exchanges. ↓ Following this instruction, the next sentence re-describes the sale as a *form change*, i.e., now Marx looks at the same transaction on level [(F)]:

The linen, for her nothing but a commodity, carrier of value, is transfigured into gold, the material shape of the linen’s value.

Die Leinwand, für ihn nur Ware, Wertträger, wird entäußert gegen Gold, ihre Wertgestalt,

“Is transfigured into gold” is a free translation which more literally would be “is disembodied in exchange against gold.” Both the

Moore-Aveling and the Fowkes translations use “alienate in exchange for gold”; this treats “entäußern” and “veräußern” as

synonyma, although in German they have opposite meanings.

↑ This sentence introduces a special terminology for the *transactions* as viewed on level [(F)]. Marx uses the pair of words *entäußern*—meaning, “disembody” or “transfigure,” i.e., strip off the external shell—for the act of selling, and *rückveräußern*—meaning “re-embody”

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or “re-externalize,” i.e., resumption of the external form—for the act of buying. Right now the commodity has gone through a transaction which Marx calls its “disembodiment,” i.e., it passed from its bodily form as a use-value into a transfigured form where it is only value, so-to-say only soul without a body. ↓ It does not stay long in this transfigured form, then it slips into a different body, it is re-embodied. In chapter Eight, 216:1/o, Marx compares the transition of the value from one use-value to another with soul-migration.

Then it is taken back out of its disembodied shape and re-embodied, externalized again, in exchange for another commodity, the Bible, which is however destined to enter the weaver’s house as an object of utility and to satisfy her family’s need for edification.

und aus dieser Gestalt rückveräußert gegen eine andre Ware, die Bibel, die aber als Gebrauchsgegenstand ins Weberhaus wandern und dort Erbauungsbedürfnisse befriedigen soll.

↑ “However” because the bible, which was a commodity prior to its acquisition, will no longer be treated as a commodity but as a use-value.

The words “*entäußern*” (disembody, transfigure) and *veräußern* (externalize) are used in the same meanings also in 126:1. But elsewhere, see for instance 118:2/o and my translation note there, Marx uses the word “*veräußern*” in its traditional meaning as a translation of Smith’s term “alienate by sale” (“alienate” here in the literal sense of making it the property of a stranger). ↓ Now Marx looks at the two transactions as a unit:

The process of exchange is therefore accomplished through two opposite yet mutually complementary metamorphoses—the conversion of the commodity into money, and the re-conversion of the money into a commodity.⁶⁵

Der Austauschprozeß der Ware vollzieht sich also in zwei entgegengesetzten und einander ergänzenden Metamorphosen—Verwandlung der Ware in Geld und ihre Rückverwandlung aus Geld in Ware.⁶⁵

↑ Here, Marx uses the word “metamorphoses” for the individual acts, not “exchanges” as in 114:3/o. Seen from the form side, the weaver does not give away her commodity, but she still has the same commodity in her hands, which however has changed its form. ↓ Heraclitus uses the metaphor of burning: The ordinary commodity linen first burns into money-ashes and then rises from these ashes in the shape of the use-value which the weaver can actually use:

⁶⁵ ‘As Heraclitus says, all things exchange for fire, and fire for all things, just as gold does for goods and goods for gold’ (F. Lassalle, *Die Philosophie Herakleitos des Dunkeln*, Berlin, 1858, Vol. I, p. 222.) Lassalle, in his note on this passage, p. 224, n. 3, erroneously declares money to be a mere symbol of value.

⁶⁵ „Aus dem ... Feuer aber wird Alles, sagte Heraklit, und Feuer aus Allem, gleich wie aus Gold Güter und aus Gütern Gold.“ (F. Lassalle, *„Die Philosophie Herakleitos des Dunkeln“*, Berlin 1858, Bd. I, p. 222.) Lassalles Note zu dieser Stelle, p. 224, n. 3, erklärt das Geld unrichtig für bloßes Wertzeichen.

Marx uses the metaphor of a chrysalis in 77:2/o and 140:3/o, and the metaphor of a larva in 125:1/o.

Question 536 Come up with other metaphors for $M-C-M$ and see what insights can be gained from them.

Question 537 Describe the phases and phase transitions in $C-M-C$ twice, once looking at it as the practical activity of an individual commodity producer, and then looking at it from the form side. 2013fa, 2012fa.

After this description from the form side, i.e., after this X-ray look at the visible practical activities to reveal their anatomy on level [(F)], Marx turns off his X-ray machine again and transitions back to level [(P)] for now. But a much more detailed description of the form side itself will be given next, starting with 115:2.

The moments of the metamorphosis of the commodity are at the same time transactions effected by the commodity owner—selling, or the exchange of the commodity for money, buying, or the exchange of the money for a commodity, and the unity of the two acts: selling in order to buy.

Die Momente der Warenmetamorphose sind zugleich Händel des Warenbesitzers—Verkauf, Austausch der Ware mit Geld; Kauf, Austausch des Gelds mit Ware, und Einheit beider Akte: verkaufen, um zu kaufen.

↑ After producing her commodities, the commodity producer must go to market and engage in two different transactions, first a sale and then a purchase, in order to obtain the products she needs. She has come to depend on it that her practical dealing and wheeling on the market will, as a rule, lead to the desired results: she will find a buyer for her wares and she will be able to purchase the use-values she needs. ↓ This exchange of use-values is her final aim, i.e., now Marx discusses the *result*.

115:1 The end result of the transaction, from the point of view of the weaver, is that instead of being in possession of the linen, she now has the Bible; instead of her original commodity, she now possesses another of the same value but of different utility.

120:1 Besieht sich der Leinweber nun das Endresultat des Handels, so besitzt er Bibel statt Leinwand, statt seiner ursprünglichen Ware eine andre vom selben Wert, aber verschiedener Nützlichkeit.

Other transactions by the linen weaver have analogous results.

She procures her other means of subsistence and production in a similar way.

In gleicher Weise eignet er sich seine andren Lebens- und Produktionsmittel an.

This allows us to make inferences about the *purpose* of this transaction for the linen weaver, i.e., about level [(M)]. It is a transformation of her labor from linen-weaving into the kinds of labor that fulfill her various needs.

For the weaver, the whole process accomplishes nothing more than the exchange of the product of her labor for the product of someone else's, nothing more than an exchange of products.

Von seinem Standpunkt vermittelt der ganze Prozeß nur den Austausch seines Arbeitsprodukts mit fremdem Arbeitsprodukt, den Produktaustausch.

↑ Marx writes “for her it is *nothing more than* an exchange of products” because the weaver takes the underlying social relations for granted which allow her to sell and buy. She does not see these relations just as we humans do not see the air we breathe or a fish does not see the water they are swimming in. We, however, will take a close look at these form changes now:

[C–M–C: Selling in Order to Buy]

While the previous section looked at the form side in conjunction with the practical activities and purposes of the agents, the present section looks at the form side again, this time as a set of social relations and interactions representing the underlying social content of which it is the form.

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115:2 The process of exchange is therefore accomplished through the following changes of form:

Commodity—Money—Commodity
 $C - M - C$.

120:2 Der Austauschprozeß der Ware vollzieht sich also in folgendem Formwechsel:

Ware—Geld—Ware
 $W - G - W$.

[Result of C–M–C] These two stages are first considered together from the point of view of their result (which allows a quick look at their social content), then separately, and then in their unity. The result of the process, viewed from the form side, is that a commodity changes from a use-value for others to a use-value for its owner. From this one can immediately infer the social content of the process, namely, metabolism of social labor. This is the most complete version of the argument 160:5/o in chapter Four, when he compares C–M–C with M–C–M. ↓ In the present text Marx does not mention the transition from result to content, but dives down immediately to content, i.e., to level [(D)]:

115:3 As far as its material content is concerned, the movement is $C - C$, the exchange of one commodity for another, the metabolic interaction of social labor, in whose result the process itself becomes extinguished.

120:3 Nach ihrem stofflichen Inhalt ist die Bewegung $W - W$, Austausch von Ware gegen Ware, Stoffwechsel der gesellschaftlichen Arbeit, in dessen Resultat der Prozeß selbst erlischt.

↑ The process is like a fire; it dies down after its result is achieved. The result does *not* recreate the conditions for the renewal of the process.

Now Marx brings more details how this result is achieved.

[C–M] First the sale.

116:1/o $C - M$. First metamorphosis of the commodity, or sale. The leap taken by value from the body of the commodity into the body of the gold is the commodity's salto mortale, as I have called it elsewhere. If the leap falls short, it is not the commodity which is bruised but rather its owner.

120:4/oo $W - G$. Erste Metamorphose der Ware oder Verkauf. Das Überspringen des Warenwerts aus dem Warenleib in den Goldleib ist, wie ich es anderswo bezeichnet, der Salto mortale der Ware. Mißlingt er, so ist zwar nicht die Ware geprellt, wohl aber der Warenbesitzer.

“Elsewhere” is a reference to *A Contribution to the Critique of Political Economy*, p. 325:1/o. “Bruised” is in German “*geprellt*” which also means “defrauded.” The commodity owner must subject his commodity to the test of the market and pass this test, otherwise his labor is in vain. The private producers, individually, must absorb the costs if social production exceeds demand, but they benefit in the symmetric imbalance that social production falls short of demand.

Question 539 Why is the commodity not bruised, and why is the commodity owner “bruised,” if the commodity’s salto mortale fails? 2013fa, 2012fa, 2010fa, 2009fa, 2007SP, 2005fa, 2001fa.

[C–M Necessary Because of Division of Labor] A different aspect of the underlying social relations is uncovered when Marx asks why the producers have use-values in their possession which they cannot use:

The social division of labor makes the nature of her labor as one-sided as her needs many-sided.

Die gesellschaftliche Teilung der Arbeit macht seine Arbeit ebenso einseitig als seine Bedürfnisse vielseitig.

↑ Here Marx refers to the social structure in the background of these individual activities, i.e., to level [(D)]. The commodity producers are members of a division of labor. They produce specialized products and cannot use all or even any of their own products themselves. On the other hand, they have many needs which can only be satisfied by the specialized products of others. Marx reminds us that the diversity of their needs is not only natural but also *generated* by the division of labor. ↓ Their product is therefore for them only an *exchange-value*, destined to be traded away for a wide variety of other commodities.

The product of her labor serves her therefore merely as exchange-value.

Ebendeswegen dient ihm sein Produkt nur als Tauschwert.

↑ She relates to her product as a sign pointing to use-values she needs. ↓ For this function, the General equivalent form would be the appropriate social form:

It cannot acquire a General socially valid equivalent form except by being converted into money—however that money is in someone else's pocket.

Allgemeine gesellschaftlich gültige Äquivalentform erhält es aber nur im Geld, und das Geld befindet sich in fremder Tasche.

This transition from a personal equivalent to a generally recognized equivalent is developed in more detail in chapter Two, 96:3–97:0a. It is the contradiction faced by the commodity traders that in terms of use-values their transaction is purely individual, and in terms of value it is purely social. This contradiction cannot be solved on an individual basis, since every commodity producer wants his commodity to be the General equivalent, but only one General equivalent is possible. But society at large steps in and designates one commodity, gold, as the General equivalent. This was discussed in chapter Two. Here, in chapter Three, we are discussing how the individuals act in the presence of money. They must convert their products into money. ↓ This conversion will only happen if their product is a use-value for the money owner.

In order to extract this money, the commodity produced by its owner's labor must above all be a use-value for the owner of the money. The labor expended on it must therefore be of a socially useful kind, i.e. it must prove its validity as a branch of the social division of labor.

Um es herauszuziehen, muß die Ware vor allem Gebrauchswert für den Geldbesitzer sein, die auf sie verausgabte Arbeit also in gesellschaftlich nützlicher Form verausgabt sein oder sich als Glied der gesellschaftlichen Teilung der Arbeit bewähren.

↑ This intertwining of different commodity metamorphoses is not the reflection of some necessity of production, but it merely comes from circulation. Its implications will be discussed in detail next.

Question 540 Why is C–M Necessary? 2013fa, 2012fa, 2011fa.

[Obstacles to C–M] ↓ The evolution of the deeper social structure, level [(D)], underlying the sale C–M, is experienced by the individuals making self-interested transactions, level [(M)], as disturbances creating uncertainty. As is typical for Marx, he first summarizes the result in a catchy phrase and then develops it.

But the division of labor is an organization of production which has evolved spontaneously, a web which was, and continues

Aber die Teilung der Arbeit ist ein naturwüchsiger Produktionsorganismus, dessen Fäden hinter dem Rücken der Waren-

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to be, woven behind the backs of the producers of commodities.

produzenten gewebt wurden und sich fortweben.

↑ The market uncertainties which will be discussed next come from the spontaneous character of the division of labor mediated by the market.

Now Marx describes eight different situations in which a commodity may not find a buyer at all or can be sold only below its value. Marx assumes an economy that is in balance and asks: which events may throw it off balance?

(1) If the labor aims to satisfy a new need, then it is not certain whether this need even exists.

Perhaps the commodity is the product of a new kind of labor, and claims to satisfy a newly arisen need, or is even trying to bring forth a new need on its own account.

Vielleicht ist die Ware Produkt einer neuen Arbeitsweise, die ein neu aufgekommenes Bedürfnis zu befriedigen vorgibt oder auf eigne Faust ein Bedürfnis erst hervorrufen will.

↑ Bottled water could be used here as a modern example. When it first was offered for sale, few consumers understood why one should buy bottled water when tap water was perfectly drinkable.

(2) A particular operation splits off and aims to become a separate trade. Are those who are presently doing it in house willing to contract it out in the future?

Perhaps a particular operation, which yesterday still formed one out of many operations conducted by the same producer in creating a given commodity, today tears itself out of this framework, establishes itself as an independent branch of labor, and sends its part of the product to market as an independent commodity. The circumstances may or may not be ripe for such a process of separation.

Gestern noch eine Funktion unter den vielen Funktionen eines und desselben Warenproduzenten, reißt sich eine besondere Arbeitsverrichtung heute vielleicht los von diesem Zusammenhang, verselbständigt sich und schickt ebendeswegen ihr Teilprodukt als selbständige Ware zu Markt. Die Umstände mögen reif oder unreif sein für diesen Scheidungsprozeß.

(3) A product is replaced by a substitute:

Today the product satisfies a social need. Tomorrow it may perhaps be expelled partly or completely from its place by a similar product.

Das Produkt befriedigt heute ein gesellschaftliches Bedürfnis. Morgen wird es vielleicht ganz oder teilweise von einer ähnlichen Produktenart aus seinem Platze verdrängt.

Note that Marx assumes an ongoing economy. He assumes that the product used to be socially necessary, but certain changes come about which make it no longer so. But even if none of the above changes occur, our individual producer may be upstaged by her competitors: Grammatically, the evolution of the division of labor is described here not as the deed of the workers, but their labor and the commodities themselves are the subjects. This is reminiscent of chapter Two, where Marx also distinguished between the will of the commodity owners and the will of the commodities themselves.

(4) The labor itself is useful but the need for this kind of product has already been satisfied by other suppliers.

Moreover, although our weaver's labor may be a recognized branch of the social division of labor, yet that fact is by no means suffi-

Ist auch die Arbeit, wie die unsres Leinwebers, patentiertes Glied der gesellschaftlichen Arbeitsteilung, so ist damit noch

cient to guarantee the utility of the 20 yards of linen woven by this particular weaver. If the society's need for linen—and such a need has a limit like every other need—has already been satisfied by the products of rival weavers, our friend's product is in excess, superfluous, and consequently useless.

keineswegs der Gebrauchswert grade seiner 20 Ellen Leinwand garantiert. Wenn das gesellschaftliche Bedürfnis für Leinwand, und es hat sein Maß wie alles andre, bereits durch nebenbuhlerische Leinweber gesättigt ist, wird das Produkt unsres Freundes überschüssig, überflüssig und damit nutzlos.

Since this product has use-value, it can probably still be sold if the price is low enough. Two paragraphs down, in 117:2/o, Marx describes this as a situation in which a form change leads to a gain or loss in quantity; at the present time, he only remarks that a loss in value is against the intention of the seller:

Although people do not look a gift-horse in the mouth, our friend does not frequent the market to make presents of his products.

Einem geschenkten Gaul sieht man nicht ins Maul, aber er beschreitet nicht den Markt, um Präsente zu machen.

This is the transition from the qualitative to the quantitative discussion. Next Marx assumes that the product indeed turns out to be a use-value, and asks how much money it attracts. This is now a quantitative question, after the qualitative criteria above whether or not the commodity is a use-value at all.

Let us assume, however, that the use-value of her product proves itself, and that the commodity therefore attracts money. Now we have to ask: how much money? No doubt the answer is already anticipated in the price of the commodity, which is the exponent of the magnitude of its value.

Gesetzt aber, der Gebrauchswert seines Produkts bewähre sich und Geld werde daher angezogen von der Ware. Aber nun fragt sich's, wieviel Geld? Die Antwort ist allerdings schon antizipiert im Preis der Ware, dem Exponenten ihrer Wertgröße.

↑ Of course, every commodity has a price tag, but the price actually received on the market may differ from the price expected by the seller for various reasons.

(5) If a wrong price was set due to mis-calculations of the commodity producer, the market's correction of this price is not a change in the quantity of value, therefore Marx disregards this here:

We leave out of consideration here any possible subjective errors in calculation by the owner of the commodity, which will immediately be corrected objectively in the market.

Wir sehn ab von etwaigen rein subjektiven Rechenfehlern des Warenbesitzers, die auf dem Markt sofort objektiv korrigiert werden.

(6) If the commodity is not produced under average conditions, the market may not reward all the labor going into this product. Marx disregards this case too; he assumes all goods are produced under average conditions:

We suppose him to have spent on his product only the average socially necessary quantity of labor-time.

Er soll auf sein Produkt nur den gesellschaftlich notwendigen Durchschnitt von Arbeitszeit verausgabt haben.

If the goods are produced under average conditions and if there are no miscalculations of the price, then the price reflects the labor input of the commodity:

The price of the commodity is therefore just the money-name of the quantity of social labor objectified in it.

Der Preis der Ware ist also nur Geldname des in ihr vergegenständlichten Quantums gesellschaftlicher Arbeit.

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Does this mean the market will accept the price? Marx brings two situations in which it won't:

(7) Even if the commodity is produced under average conditions, there may be changes in the production of the same commodity elsewhere. In other words, even if this producer, individually, does everything right, she may be rudely reminded that abstract labor is a social concept:

But now the old-established conditions of production in weaving are thrown into the melting-pot, without the permission of, and behind the back of, our weaver. What was yesterday undoubtedly labor-time socially necessary for the production of a yard of linen ceases to be so today, a fact which the owner of the money is only too eager to prove from the prices quoted by our friend's competitors. Unluckily for the weaver, people of her kind are in plentiful supply.

Aber ohne Erlaubnis und hinter dem Rücken unsres Leinwebers gerieten die altverbürgten Produktionsbedingungen der Leinweberei in Gärung. Was gestern zweifelsohne gesellschaftlich notwendige Arbeitszeit zur Produktion einer Elle Leinwand war, hört heute auf, es zu sein, wie der Geldbesitzer eifrigst demonstriert aus den Preisquotationen verschiedner Nebenbuhler unsres Freundes. Zu seinem Unglück gibt's viele Weber auf der Welt.

Question 541 *Usually, Marx says that the strength of the proletariat comes from its numbers; but in 200:4/o, Marx says that it is unlucky for the weaver that there are many weavers in the world. How can he come to such conflicting pronouncements?* [2013fa](#), [2012fa](#), [2010fa](#).

(8) And again the case in which too much was produced. This is similar to (4), but this time all producers have to cut their prices. Marx says this is tantamount to them producing at a below-normal productivity:

Let us suppose, finally, that every piece of linen on the market contains nothing but socially necessary labor-time. In spite of this, all these pieces taken as a whole may contain superfluously expended labor-time. If the market cannot stomach the whole quantity at the normal price of 2 shillings a yard, this proves that too great a portion of the total social labor-time has been expended in the form of weaving. The effect is the same as if each individual weaver had expended more labor-time on his or her particular product than was socially necessary. As the German proverb has it: caught together, hung together. All the linen on the market counts as one single article of commerce, each piece of linen being only a proportional part of it.

Gesetzt endlich, jedes auf dem Markt vorhandne Stück Leinwand enthalte nur gesellschaftlich notwendige Arbeitszeit. Trotzdem kann die Gesamtsumme dieser Stücke überflüssig verausgabte Arbeitszeit enthalten. Vermag der Marktmagen das Gesamtquantum Leinwand, zum Normalpreis von 2 sh. per Elle, nicht zu absorbieren, so beweist das, daß ein zu großer Teil der gesellschaftlichen Gesamtarbeitszeit in der Form der Leinweberei verausgabt wurde. Die Wirkung ist dieselbe, als hätte jeder einzelne Leinweber mehr als die gesellschaftlich notwendige Arbeitszeit auf sein individuelles Produkt verwandt. Hier heißt's: Mitgefangen, mitgehangen. Alle Leinwand auf dem Markt gilt nur als ein Handelsartikel, jedes Stück nur als aliquoter Teil.

↑ The market counts each piece of linen only as a proportional part of the total quantity of linen because of competition: the unsold linen depresses the price of all linen. ↓ This competitive outcome is an accurate reflection of the underlying value relations; the quantity of value is not the quantity of labor actually expended but it is socially determined, it is the quantity of socially necessary labor:

Indeed, the value of each individual yard is, as we know, simply the materialization of the same socially determined quantity of homogeneous human labor.

Und in der Tat ist der Wert jeder individuellen Elle ja auch nur die Materialisierung desselben gesellschaftlich bestimmten Quantum gleichartiger menschlicher Arbeit.

↑ “Same” means here they all must have the same price, and “socially determined” means it is not necessarily equal to the quantity of labor actually used. In a letter of 28 November 1878 to N. F. Danielson, the Russian translator of *Capital*, published in MEW 34, pp. 362/3 Marx made the following alteration to this last sentence:

Indeed, the value of each individual yard is, as we know, only the materialization of a portion of the social labor spent in the production of the whole amount of linen.

Und in der Tat ist der Wert jeder individuellen Elle ja auch nur die Materialisierung eines Teils des im Gesamtquantum der Ellen verausgabten gesellschaftlichen Arbeitsquantums.

↑ And since the total amount of linen was too much, not all of the labor spent in producing linen was socially necessary.

Question 542 Which difficulties may the commodity producer encounter when trying to sell the commodity? [2013fa](#), [2012fa](#), [2009fa](#), [2008fa](#), [2007fa](#), [2007SP](#), [2001fa](#), [2000fa](#), [1999SP](#), [1998WI](#), [1997ut](#).

Question 543 For each of the difficulties enumerated by Marx in selling the commodity, discuss what would be a rational way to resolve the issue in a not necessarily capitalist society. [2013fa](#).

↓ Marx draws the following conclusion from the difficulties in selling the commodity:

117:1 We see then that commodities are in love with money, but ‘the course of true love never does run smooth’. The quantitative articulation of society’s productive organism, by which its scattered elements are integrated into the system of the division of labor, is as haphazard and spontaneous as its qualitative articulation. The owners of commodities therefore find out that the same division of labor which turns them into independent private producers also makes the social process of production and the relations of the individual producers to each other within that process independent of the producers themselves; they also find out that the independence of the individuals from each other is supplemented by a system of all-round material dependence.

122:1 Man sieht, die Ware liebt das Geld, aber „the course of true love never does run smooth“. Ebenso naturwüchsig zufällig wie die qualitative ist die quantitative Gliederung des gesellschaftlichen Produktionsorganismus, der seine membra disjecta im System der Teilung der Arbeit darstellt. Unsere Warenbesitzer entdecken daher, daß dieselbe Teilung der Arbeit, die sie zu unabhängigen Privatproduzenten, den gesellschaftlichen Produktionsprozeß und ihre Verhältnisse in diesem Prozeß von ihnen selbst unabhängig macht, daß die Unabhängigkeit der Personen voneinander sich in einem System allseitiger sachlicher Abhängigkeit ergänzt.

Question 546 Marx says that the independence of the individuals from each other is supplemented by a system of all-round material dependence. Explain what this means. [2013fa](#), [2010fa](#), [2007SP](#), [2005fa](#).

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Although the producers are personally independent of each other, also the system of social interconnections of the production process is independent of the producers, and forces the producers into a system of material dependence of each other.

↓ After all this, Marx assumes that the process goes smoothly despite the above obstacles. Discrepancies between demand and supply are also discussed in 111:1–112:0, and *Capital II* is discussing the conditions necessary for demand and supply to coincide.

117:2/o The division of labor converts the product of labor into a commodity, and thereby makes necessary its conversion into money. At the same time, it makes it a matter of chance whether this transubstantiation succeeds or not. Here, however, we have to look at the phenomenon in its pure shape, and must therefore assume it has proceeded normally. In any case, if the process is to take place at all, i.e. if the commodity is not impossible to sell, a change of form must always occur, although there may be an abnormal loss or accretion of substance—that is, of the magnitude of value.

122:2 Die Teilung der Arbeit verwandelt das Arbeitsprodukt in Ware und macht dadurch seine Verwandlung in Geld notwendig. Sie macht es zugleich zufällig, ob diese Transsubstantiation gelingt. Hier ist jedoch das Phänomen rein zu betrachten, sein normaler Vorgang also vorauszusetzen. Wenn es übrigens überhaupt vorgeht, die Ware also nicht unverkäuflich ist, findet stets ihr Formwechsel statt, obgleich abnormal in diesem Formwechsel Substanz—Wertgröße—eingebüßt oder zugesetzt werden mag.

Marx does not speak here of division of labor in general, but the very specific division of labor with private producers producing for the market. In 52:2 Marx emphasizes that non-market division of labor is also possible.

[C–M from the Side of Money] Next follows a summary preparing the transition to the back side of $C - M$, namely, this $C - M$ is the $M - C$ for someone else.

118:1 The seller has her commodity replaced by gold, the buyer has his gold replaced by a commodity. The palpable phenomenon here is that a commodity and gold, 20 yards of linen and £2, have changed hands and places, in other words that they have been exchanged.

122:3/o Dem einen Warenbesitzer ersetzt Gold seine Ware und dem andren Ware sein Gold. Das sinnfällige Phänomen ist der Hände- oder Stellenwechsel von Ware und Gold, von 20 Ellen Leinwand und 2 Pfd.St., d.h. ihr Austausch.

Fowkes translates “*sinnfällig*” as “striking” which is wrong.

↑ On level [(P)], this looks just like a barter between two ordinary commodities. ↓ Now Marx asks a series of questions which highlight the difference between a sale and a barter: But what is the commodity exchanged for? For the general shape assumed by its own value.

Aber womit tauscht sich die Ware aus? Mit ihrer eignen allgemeinen Wertgestalt.

Sale is not exchange with *other* use-value, i.e., it is not a transaction involving *two* commodities, but realization of the commodity’s *own* value in money, i.e., it involves only one commodity. Whereas the direct barter $C - C$ is a symmetric relation between the commodities, $C - M$ is asymmetric. Because of this asymmetry, the next question after “what is the sale for the commodity?” is “what is the sale for the money?” The answer will be: realization of the money’s notional (*ideell*) use-value. But it takes Marx a couple of steps to get there:

And what is the gold exchanged for? For a particular form of its own use-value.

Und womit das Gold? Mit einer besondren Gestalt seines Gebrauchswerts.

The next question is: how did M get into this special position in the circulation process? Because it is measure of value. Interestingly, Marx writes here as if the transition from measure of value to means of circulation is immediate, although earlier he had implied that a social act was necessary to make this transition.

Why does gold confront the linen as money? Because the linen's price of £2, its money-name, already brings it into relation with the gold as money.

Warum tritt Gold der Leinwand als Geld gegenüber? Weil ihr Preis von 2 Pfd.St. oder ihr Geldname sie bereits auf Gold als Geld bezieht.

In the second half of the paragraph, Marx makes the transition from $C - M$ to $M - C$. He does not transition from $C-M$ to the $M-C$ following it, but to the $M-C$ which the original $C-M$ is for the buyer. This transition is not accessible to him while he is looking at the form side itself, instead he has to go back to level [(P)], the transaction as a practical act. What from the form side is transfiguration, the casting off of the earthly or external form (*Entäußerung*), is as practical activity alienation, the giving away of the good to a stranger for money (*Veräußerung*).

Question 548 Marx asks the following questions for the sales transaction between linen and gold (which looks like a simple barter):

- (a) What is the linen exchanged for?
- (b) What is the gold exchanged for?
- (c) Why does gold confront the linen as money?

How does he answer these questions? How would questions (a) and (b) be answered if gold were an ordinary commodity, not the money commodity? (Think iron instead of gold).

The disembodiment of the original commodity form is effected by the externalization, the sale, of the commodity, i.e., in the moment when its use-value actually attracts the gold to which it previously had a merely imagined relation in its price.

Die Entäußerung der ursprünglichen Warenform vollzieht sich durch die Veräußerung der Ware, d.h. in dem Augenblicke, wo ihr Gebrauchswert das in ihrem Preis nur vorgestellte Gold wirklich anzieht.

Marx's formulations play on the fact that in German, "*veräußern*" not only means "externalize," but this same word is also used for selling something, just as the English word "alienate" is

sometimes used in the meaning of "selling something." This is paradoxical. The transaction which in German is called externalization is, if looked at from the form side, exactly the

opposite, namely the transition of the commodity *away from* its exterior bodily form into its disembodied money form.

The actualization of a commodity's price, or of its merely notional value form, is therefore at the same time, and inversely, the actualization of the merely notional use-value of money; the conversion of a commodity into money is the conversion of money into a commodity. This single process is two-sided: from one pole, that of the commodity owner, it is a sale, from the other pole,

Die Realisierung des Preises oder der nur ideellen Wertform der Ware ist daher zugleich umgekehrt Realisierung des nur ideellen Gebrauchswerts des Geldes, die Verwandlung von Ware in Geld zugleich Verwandlung von Geld in Ware. Der eine Prozeß ist zweiseitiger Prozeß, vom Pol des Warenbesitzers Verkauf, vom Gegenpol des Geldbesitzers Kauf. Oder Verkauf ist Kauf,

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that of the money owner, it is a purchase. In other words, a sale is a purchase, $C - M$ is also $M - C$.⁶⁶

⁶⁶ 'Every sale is a purchase' (Dr. Quesnay, *Dialogues sur le commerce et les travaux des artisans*, Physiocrates, ed. Daire, Part 1, Paris, 1846, p. 170), or, as Quesnay says in his *Maximes générales*, 'To sell is to buy.'

$W - G$ zugleich $G - W$.⁶⁶

⁶⁶ „Jeder Verkauf ist Kauf“ (Dr. Quesnay, „*Dialogues sur le Commerce et les Travaux des Artisans*“, [in] „*Physiocrates*“, éd. Daire, I. Partie, Paris 1846, p. 170), oder, wie Quesnay in seinen „*Maximes Générales*“ sagt: „Verkaufen ist kaufen.“

↑ This simple equation, a sale is a purchase, has two important implications.

- You cannot sell without someone else willing to purchase your commodity.
- But the purchaser is in a different position than you. He needs money to make the purchase, while you do not need money for making the sale.

The second point is an important difference to the barter. If you barter something, you also need a partner willing to be your counterpart in the barter. But this partner is in the same position as you. ↓ In the sale, your counterpart is in a different position than you. He or she must have money. Where does this money come from?

118:2/o Up to this point we have considered only one economic relation, namely, where people relate to each other as commodity owners. They can own the product of alien labor only by alienating the product of their own labor. For a commodity owner to confront another as a money owner it is therefore necessary either that the product of the latter should possess by its nature the form of money, i.e. it should be gold, the material of which money consists, or that his product should already have changed its skin and stripped off its original form of a useful object.

123:1/o Wir kennen bisher kein ökonomisches Verhältnis der Menschen außer dem von Warenbesitzern, ein Verhältnis, worin sie fremdes Arbeitsprodukt nur aneignen, indem sie eignes entfremden. Einem Warenbesitzer kann der andre daher nur als Geldbesitzer gegenübertreten, entweder weil sein Arbeitsprodukt von Natur die Geldform besitzt, also Geldmaterial ist, Gold usw., oder weil seine eigne Ware sich bereits gehäutet und ihre ursprüngliche Gebrauchsform abgestreift hat.

The next passage elaborates, in more detail, the two possibilities how the buyer can have obtained his money:

In order to function as money, gold must of course enter the market at some point or other. This point is to be found at its source of production, where the gold is exchanged, as the immediate product of labor, for some other product of equal value. But from that moment onwards, it always represents the actualized price of some commodity.⁶⁷

⁶⁷ 'The price of one commodity can only be paid by the price of another commodity.' (Mercier de la Rivière, *L'Ordre naturel et essentiel des sociétés politiques*, [in] *Physiocrates*, éd. Daire, Part 2, p. 554.)

Um als Geld zu funktionieren, muß das Gold natürlich an irgendeinem Punkt in den Warenmarkt eintreten. Dieser Punkt liegt an seiner Produktionsquelle, wo es sich als unmittelbares Arbeitsprodukt mit andrem Arbeitsprodukt von demselben Wert austauscht. Aber von diesem Augenblick stellt es beständig realisierte Warenpreise vor.⁶⁷

⁶⁷ „Der Preis einer Ware kann nur mit dem Preis einer anderen Ware bezahlt werden.“ (Mercier de la Rivière, „*L'Ordre naturel et essentiel des sociétés politiques*“, [in] „*Physiocrates*“, éd. Daire, p. 554.)

3.2. Means of Circulation

With every commodity other than gold, the natural way why the seller has possession of it is that he has produced it, and this is the simplifying assumption Marx makes here. With gold it is otherwise; the original sale of gold by the gold producers is only a small part of its presence on the market. Most market participants who have gold in their pocket have it because they have sold their own product.

Leaving aside the exchange of gold for other commodities at its source of production, gold is, in the hands of every commodity-owner, the disembodied shape of the alienated commodity, it is the product of the first metamorphosis $C - M$.⁶⁸ Gold, as we saw, became notional money, or measure of value, because all commodities measured their values in it and thus made it the imagined opposite of their natural shape as objects of utility, i.e., made it the shape of their value. It became actual money because the commodities, through their all-sided externalization, alienation, turned the money into their actually disembodied or transfigured useful shape, thus making it the actual embodiment of their values.

Abgesehen vom Austausch des Golds mit Ware an seiner Produktionsquelle, ist das Gold in der Hand jedes Warenbesitzers die entäußerte Gestalt seiner veräußerten Ware, Produkt des Verkaufs oder der ersten Warenmetamorphose $W - G$.⁶⁸ Ideelles Geld oder Wertmaß wurde das Gold, weil alle Waren ihre Werte in ihm maßen und es so zum vorgestellten Gegenteil ihrer Gebrauchsgestalt, zu ihrer Wertgestalt machten. Reelles Geld wird es, weil die Waren durch ihre allseitige Veräußerung es zu ihrer wirklich entäußerten oder verwandelten Gebrauchsgestalt und daher zu ihrer wirklichen Wertgestalt machen.

Marx uses the paradoxical meanings of the word “*veräußern*” as a pun, but since it is impossible to reproduce this pun in a

meaningful way in English, the above translation translates “*veräußert*” simply by “sold,” and omits the explanatory reference to

sale immediately following in the same sentence.

⁶⁸ ‘In order to have this money, one must have made a sale’ (ibid., p. 543).

When they thus assume the shape of values, commodities strip off every trace of their natural and original use-values, and of the particular kind of useful labor to which they owe their creation, in order to pupate into the homogeneous social materialization of undifferentiated human labor. From the mere look of a piece of money we cannot tell what breed of commodity has been transformed into it. In their money-form all commodities look alike. Hence money may be dirt, although dirt is not money.

⁶⁸ „Um dieses Geld zu haben, muß man verkauft haben.“ (l.c. p. 543.)

In ihrer Wertgestalt streift die Ware jede Spur ihres naturwüchsigen Gebrauchswerts und der besondern nützlichen Arbeit ab, welcher sie den Ursprung verdankt, um sich in die gleichförmige gesellschaftliche Materialität unterschiedsloser menschlicher Arbeit zu verpuppen. Man sieht dem Geld daher nicht an, welchen Schlags die in es verwandelte Ware. Eine sieht in ihrer Geldform grade aus wie die andre. Geld mag daher Dreck sein, obgleich Dreck nicht Geld ist.

Question 549 What does Marx mean with the aphorism: “Money may be dirt, although dirt is not money.” 2013fa, 2012fa, 2009fa, 2008fa, 2007fa.

Usually the buyer obtains his money by selling another commodity; this leads us over to the discussion of the second metamorphosis of a commodity.

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We will assume that the two golden coins in return for which our weaver has parted with her linen are the metamorphosed shape of a quarter of wheat. The sale of the linen, $C - M$, is at the same time its purchase, $M - C$. But this process, considered as the sale of the linen, starts off a movement which ends with its opposite: the purchase of a Bible. Considered as purchase of the linen, on the other hand, the process completes a movement which began with its opposite, the sale of the wheat. $C - M$ (linen—money), which is the first phase of C (linen—money—Bible), is also $M - C$ (money—linen), the last phase of another movement $C - M - C$ (wheat—money—linen). The first metamorphosis of one commodity, its transformation from the commodity-form into money, is therefore also invariably the second, and diametrically opposite, metamorphosis of some other commodity, the retransformation of the latter from money into a commodity.⁶⁹

⁶⁹ As remarked previously, the producer of gold or silver forms an exception. He exchanges his product without having sold it first.

Wir wollen annehmen, daß die zwei Goldföcher, wogegen unser Leinweber seine Ware veräußert, die verwandelte Gestalt eines Quarters Weizen sind. Der Verkauf der Leinwand, $W - G$, ist zugleich ihr Kauf, $G - W$. Aber als Verkauf der Leinwand beginnt dieser Prozeß eine Bewegung, die mit seinem Gegenteil endet, mit dem Kauf der Bibel; als Kauf der Leinwand endet er eine Bewegung, die mit seinem Gegenteil begann, mit dem Verkauf des Weizens. $W - G$ (Leinwand—Geld), diese erste Phase von $W - G - W$ (Leinwand—Geld—Bibel), ist zugleich $G - W$ (Geld—Leinwand), die letzte Phase einer andren Bewegung $W - G - W$ (Weizen—Geld—Leinwand). Die erste Metamorphose einer Ware, ihre Verwandlung aus der Warenform in Geld, ist stets zugleich zweite entgegengesetzte Metamorphose einer andren Ware, ihre Rückverwandlung aus der Geldform in Ware.⁶⁹

⁶⁹ Ausnahme, wie vorher bemerkt, bildet der Gold- resp. Silberproduzent, der sein Produkt austauscht, ohne es vorher verkauft zu haben.

[M—C] After this detailed look at the sale from several different angles, Marx looks now at the subsequent purchase M—C. For instance, what does the linen weaver do with the £2 she receives for selling the 20 yards of linen? ↓ The first paragraph looks at one individual commodity:

120:1 $M - C$. The second or concluding metamorphosis of the commodity: purchase. Money is the absolutely alienable commodity, because it is the disembodied shape of all other commodities, the product of their universal externalization, alienation.

↑ The disembodied commodity is a void that longs to be filled again. Marx seems to play here with the two contradictory meanings of “*Veräußerung*”: on the one hand alienation, sale, and on the other hand externalization, spending money to purchase something.

It reads all prices backwards, and thus as it were mirrors itself in the bodies of all other commodities, which provide the material through which it itself can come into being as a commodity.

Money is absolutely alienable, i.e., it is a commodity always welcome on the market. Pun with the German word *Hingabe* which not only means the act of giving away but also rapt

124:1 $G - W$. Zweite oder Schlußmetamorphose der Ware: Kauf.—Weil die entäußerte Gestalt aller andren Waren oder das Produkt ihrer allgemeinen Veräußerung, ist Geld die absolut veräußerliche Ware.

Es liest alle Preise rückwärts und spiegelt sich so in allen Warenleibern als dem hingebenden Material seiner eignen Warenwerdung.

attention, even sexual surrender. The commodities surrender their bodies in two ways: they give their bodies away and they achieve bodily fulfilment by doing it.

At the same time the prices, those wooing glances cast at money by commodities, make the limit of money's convertibility visible, namely money's own quantity.

Zugleich zeigen die Preise, die Liebesaugen, womit ihm die Waren winken, die Schranke seiner Verwandlungsfähigkeit, nämlich seine eigne Quantität.

↑ Marx mentions very briefly that the only obstacle (*Schranke*) for money is its quantity. This theme will be taken up again in the discussion of the miser on p. 143:1/o and in 162:2/o in chapter Four. ↓ Money represents the value of the sold commodity, with the use-value erased:

Since every commodity is erased when it becomes money it is impossible to tell from the money itself how it got into the hands of its possessor, or what article has been changed into it. It has no smell, from whatever source it may come.

Da die Ware in ihrer Geldwerdung verschwindet, sieht man dem Geld nicht an, wie es in die Hände seines Besitzers gelangt oder was in es verwandelt ist. Non olet, wessen Ursprungs auch immer.

This erasure longs for replenishment—which comes from the use-value to be purchased. If it represents, on the one hand, a commodity which has been sold, it also represents, on the other hand, a commodity which can be bought.⁷⁰

Wenn es einerseits verkaufte Ware repräsentiert, so andererseits kaufbare Ware.⁷⁰

Question 551 How does Marx make the step, in 205:1, from “money represents the commodity which has been sold” to “money also represents a commodity which can be bought”? 2013fa.

⁷⁰ ‘If money represents, in our hands, the things we can wish to buy, it also represents the things we have sold for this money’ (Mercier de la Riviere, op. cit., p. 586).

⁷⁰ „Wenn das Geld in unserer Hand die Dinge darstellt, die wir zu kaufen wünschen können, so stellt es auch die Dinge dar, die wir für dieses Geld verkauft haben.“ (Mercier de la Rivière, l.c. p. 586.)

The next paragraph goes over to the backside again: $M - C$ is also the first metamorphosis $C - M$ for a different commodity.

120:2 $M - C$, a purchase, is at the same time $C - M$, a sale; the concluding metamorphosis of one commodity is the first metamorphosis of another. For our weaver, the life of her commodity ends with the Bible into which she has reconverted her £2.

124:2/o $G - W$, der Kauf ist zugleich Verkauf, $W - G$; die letzte Metamorphose einer Ware daher zugleich die erste Metamorphose einer andren Ware. Für unsren Leinweber schließt der Lebenslauf seiner Ware mit der Bibel, worin er die 2 Pfd.St. rückverwandelt hat.

↑ “Reconverted” because the weaver’s commodity has regained a use-value form, no longer linen but Bible. “Commodity form” is here synonymous to “use-value form,” and “Money form” to “value form.”

But suppose the seller of the Bible turns the £2 set free by the weaver into brandy. $M - C$, the concluding phase of $C - M - C$ (linen—money—Bible), is also $C - M$, the first phase of $C - M - C$ (Bible—money—brandy).

Aber der Bibelverkäufer setzt die vom Leinweber gelösten 2 Pfd.St. in Kornbranntwein um. $G - W$, die Schlußphase von $W - G - W$ (Leinwand—Geld—Bibel), ist zugleich $W - G$, die erste Phase von $W - G - W$ (Bibel—Geld—Kornbranntwein).

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Many different $M - C$ often come out of one $C - M$.

Since the producer of the commodity offers only a single product, he often sells it in large quantities, whereas the fact that he has many needs compels him to split up the price realized, the sum of money set free, into numerous purchases. Hence one sale leads to many purchases of different commodities. The concluding metamorphosis of one commodity thus constitutes an aggregate of the first metamorphoses of several other commodities.

Da der Warenproduzent nur ein einseitiges Produkt liefert, verkauft er es oft in größeren Massen, während seine vielseitigen Bedürfnisse ihn zwingen, den realisierten Preis oder die gelöste Geldsumme beständig in zahlreiche Käufe zu zersplittern. Ein Verkauf mündet daher in viele Käufe verschiedener Waren. Die Schlußmetamorphose einer Ware bildet so eine Summe von ersten Metamorphosen andrer Waren.

Question 552 *If many $M - C$ often come out of the same $C - M$, doesn't this mean there are more purchases than sales? How can this be, if every purchase is a sale and vice versa?* 2013fa, 2012fa.

[C-M-C] Now the transaction as a whole.

120:3 If we now consider the completed metamorphosis of a commodity as a whole, we see in the first place that it is made up of two opposite and complementary movements, $C - M$ and $M - C$. These two antithetical transmutations of the commodity are accomplished through two antithetical social processes in which the commodity-owner takes part, and are reflected in two antithetical economic characters of the commodity-owner. By taking part in the act of sale, the commodity-owner becomes a seller; in the act of purchase, he becomes a buyer.

125:1 Betrachten wir nun die Gesamtmetamorphose einer Ware, z.B. der Leinwand, so sehn wir zunächst, daß sie aus zwei entgegengesetzten und einander ergänzenden Bewegungen besteht, $W - G$ und $G - W$. Diese zwei entgegengesetzten Wandlungen der Ware vollziehn sich in zwei entgegengesetzten gesellschaftlichen Prozessen des Warenbesitzers und reflektieren sich in zwei entgegengesetzten ökonomischen Charakteren desselben. Als Agent des Verkaufs wird er Verkäufer, als Agent des Kaufs Käufer.

↑ The commodity producer has to sell his commodity in order to get the use-value he or she needs. He has to engage in two social transactions in order to achieve his or her individual needs. Then Marx redescribes this process from the form side. The purposeful individual activity of the commodity owner in a social framework “*reflects* itself,” as Marx says, in two economic characters of the commodity owner, seller and buyer

Next Marx makes two amendments to this redescription, both addressing the relationship between seller and buyer. ↓ Here is the first amendment:

But just as, in every transmutation of a commodity, its two forms, the commodity-form and the money-form, exist simultaneously but at opposite poles, so every seller is confronted with a buyer, every buyer with a seller.

Wie aber in jeder Wandlung der Ware ihre beiden Formen, Warenform und Geldform, gleichzeitig existieren, nur auf entgegengesetzten Polen, so steht demselben Warenbesitzer als Verkäufer ein andrer Käufer und als Käufer ein andrer Verkäufer gegenüber.

↑ Seller and buyer are never alone, each seller is confronted by a buyer and vice versa. ↓ The second amendment is: every commodity owner goes through both economic characters in turns, first he or she is a seller, then a buyer:

While the same commodity is successively passing through the two inverted transmutations, from a commodity into money and from money into another commodity, the owner of the commodity successively changes his role from seller to buyer. Being a seller and being a buyer are therefore not fixed roles, but constantly attach themselves to different persons in the course of the circulation of commodities.

⇓ Marx's description of the complete metamorphosis plays with the metaphor that the money-form is a heavenly form, while ordinary commodities are in the earthly realm. Marx says the money form is "beyond" ("*jenseits*") even though this "beyond" is just located in someone else's pocket and even though this money form of the commodity is not a disembodied angel but hard material cash. The use-value form occupied by ordinary commodities, by contrast, are said to be "here and now" ("*diesseits*") wherever they may be. Reaching them is no problem for the money owner.

121:1 The complete metamorphosis of a commodity, in its simplest form, implies four *dénouements* and three *dramatis personae*. First, a commodity comes face to face with money; the latter is the form taken by the value of the former, and exists beyond, in someone else's pocket in all its hard, material reality. A commodity-owner is thus confronted with a money-owner. Now as soon as the commodity has been changed into money, the money becomes its vanishing equivalent-form, whose use-value or content exists here and now, in the bodies of other commodities. Money, the final stage of the first transformation, is at the same time the starting-point for the second. The person who is a seller in the first transaction thus becomes a buyer in the second, in which a third commodity-owner comes to meet him as a seller.⁷¹

⁷¹ 'There are accordingly ... four final terms and three contracting parties one of whom intervenes twice' (Le Trosne, op. cit., p. 909).

Four extremes (C, M, M, C) but only three persons since the seller in the first step is the buyer in the second.

121:2 The two inverted phases of the movement which makes up the metamorphosis of a commodity constitute a circuit: commodity form, stripping off of this form, and return to it. However the commodity it-

Wie dieselbe Ware die zwei umgekehrten Wandlungen sukzessiv durchläuft, aus Ware Geld und aus Geld Ware wird, so wechselt derselbe Warenbesitzer die Rollen von Verkäufer und Käufer. Es sind dies also keine festen, sondern innerhalb der Warenzirkulation beständig die Personen wechselnden Charaktere.

125:2 Die Gesamtmetamorphose einer Ware unterstellt, in ihrer einfachsten Form, vier Extreme und drei *personae dramatis*. Erst tritt der Ware das Geld als ihre Wert-Gestalt gegenüber, die *jenseits*, in fremder Tasche, sachlich harte Realität besitzt. So tritt dem Warenbesitzer ein Geldbesitzer gegenüber. Sobald die Ware nun in Geld verwandelt, wird letzteres zu ihrer verschwindenden Äquivalentform, deren Gebrauchswert oder Inhalt *diesseits* in andren Warenkörpern existiert. Als Endpunkt der ersten Warenwandlung ist das Geld zugleich Ausgangspunkt der zweiten. So wird der Verkäufer des ersten Akts Käufer im zweiten, wo ihm ein dritter Warenbesitzer als Verkäufer gegenübertritt.⁷¹

⁷¹ „Demnach gibt es vier Endpunkte und drei Vertragspartner, von denen einer zweimal eingreift.“ (Le Trosne, l.c. p. 909.)

126:1 Die beiden umgekehrten Bewegungsphasen der Warenmetamorphose bilden einen Kreislauf: Warenform, Abstreifung der Warenform, Rückkehr zur Warenform. Allerdings ist die Ware selbst hier ge-

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self is determined in two opposite ways. At the starting-point it is a non-use-value for its owner, while at the end it is a use-value for its owner.

↑ These two opposite determinations of the commodity itself do not prevent the process from being a circle—just as the fact that a train at the beginning is driving out of the station while at the end it is driving into the station does not negate the fact that the train has gone in a circle. ↓ The form of *money* is different too in the first transaction than in the second.

So too the money appears in the first phase as a solid crystal of value into which the commodity has been transformed, but afterwards it dissolves into the mere equivalent form of the commodity.

gensätzlich bestimmt. Am Ausgangspunkt ist sie Nicht-Gebrauchswert, am Endpunkt Gebrauchswert für ihren Besitzer.

So erscheint das Geld erst als der feste Wertkristall, worin sich die Ware verwandelt, um hinterher als ihre bloße Äquivalentform zu zerrinnen.

↑ These two forms of money are also differentiated in 140:3/o.

[Different C–M–C Processes Enmeshed] The complete metamorphosis of one commodity is at the same time the second metamorphosis of another and the first metamorphosis of a third commodity. This observation furnishes the transition from the metamorphosis of a single commodity to the metamorphoses of all commodities and their interconnection.

121:3/o The two metamorphoses which constitute the commodity's circular path are at the same time two inverse partial metamorphoses of two other commodities. One and the same commodity (the linen) opens the series of its own metamorphoses, and completes the metamorphosis of another (the wheat). In its first transformation, the sale, the linen plays these two parts in its own person. But then it goes the way of all flesh, enters the chrysalis state as gold, and thereby simultaneously completes the first metamorphosis of a third commodity. Hence the circuit made by one commodity in the course of its metamorphoses is inextricably entwined with the circuits of other commodities. The process as a whole presents itself as the circulation of commodities.

126:2 Die zwei Metamorphosen, die den Kreislauf einer Ware, bilden zugleich die umgekehrten Teilmetamorphosen zweier andren Waren. Dieselbe Ware (Leinwand) eröffnet die Reihe ihrer eignen Metamorphosen und schließt die Gesamtmetamorphose einer andren Ware (des Weizens). Während ihrer ersten Wandlung, dem Verkauf, spielt sie diese zwei Rollen in eigner Person. Als Goldchrysalide dagegen, worin sie selbst den Weg alles Fleisches wandert, endet sie zugleich die erste Metamorphose einer dritten Ware. Der Kreislauf, den die Metamorphosenreihe jeder Ware beschreibt, verschlingt sich also unentwirrbar mit den Kreisläufen andrer Waren. Der Gesamtprozeß stellt sich dar als Warenzirkulation.

Fowkes: This whole process constitutes the circulation of commodities.

↑ Definition of the “circulation process” as the totality of all individual C–M–C processes.

[Comparison with Direct Barter] Marx ends with a comparison of the circulation process with the direct barter of products, i.e., a comparisons of the end point with the starting point of his development. Circulation differs from barter not only formally but also in its content (Marx writes here “essence,” *Wesen*), the transfer of use-values. Marx lists three differences:

[One does not have to Buy from the Same Person to whom one has Sold]

First difference: a different flow of goods.

122:1 The circulation of commodities differs from the direct barter of products not only in form, but in its essence. We have only to consider the course of events. The weaver has undoubtedly exchanged her linen for a Bible, her own commodity for someone else's. But this phenomenon is only true for her. The Bible pusher, who prefers a warming drink to cold sheets, had no intention of exchanging linen for his Bible; the weaver did not know that wheat had been exchanged for her linen. *B*'s commodity replaces that of *A*, but *A* and *B* do not mutually exchange their commodities. It may in fact happen that *A* and *B* buy from each other, but a particular relationship of this kind is by no means the necessary result of the general conditions of the circulation of commodities.

126:3 Die Warenzirkulation ist nicht nur formell, sondern wesentlich vom unmittelbaren Produktaustausch unterschieden. Man werfe nur einen Rückblick auf den Vorgang. Der Leinweber hat unbedingt Leinwand mit Bibel vertauscht, eigne Ware mit fremder. Aber dies Phänomen ist nur wahr für ihn. Der Bibelagent, der dem Kühlen Heißes vorzieht, dachte nicht daran, Leinwand für Bibel einzutauschen, wie der Leinweber nicht davon weiß, daß Weizen gegen seine Leinwand eingetauscht worden ist usw. Die Ware des *B* ersetzt die Ware des *A*, aber *A* und *B* tauschen nicht wechselseitig ihre Waren aus. Es kann in der Tat vorkommen, daß *A* und *B* wechselweis voneinander kaufen, aber solche besondere Beziehung ist keineswegs durch die allgemeinen Verhältnisse der Warenzirkulation bedingt.

Question 555 *Can Phenomena be true?* 2013fa.

Question 556 *What is the deeper reason that reciprocity agreements, i.e., agreements of the form: "I buy this from you if you buy that from me" are illegal in the U.S.?* 2013fa, 2010fa, 2009fa, 2004fa, 2003fa, 2002fa, 1999SP, 1998WI.

↑ A different pattern of transfers is created by commodity circulation than by direct exchange. In the latter, if *B* obtains the commodities of *A*, then *A* obtains those of *B*. In circulation, *B* obtains those of *A*, but *C* those of *B*, and so forth.

[Circulation Breaks through Local and Temporal Barriers] Second difference: in direct barter, both transactions have to occur at the same time and place. In C–M–C, this is no longer necessary. Thus commodity circulation breaks through individual and local barriers of direct barter.

We see here, on the one hand, how the exchange of commodities breaks through all the individual and local limitations of the direct barter of products, and develops the metabolic process of human labor.

Einerseits sieht man hier, wie der Warenaustausch die individuellen und lokalen Schranken des unmittelbaren Produktaustausches durchbricht und den Stoffwechsel der menschlichen Arbeit entwickelt.

↓ But the economic agents' social connection is removed further from their control.

On the other hand, there develops a whole network of quasi-natural connections of social origin, entirely beyond the control of the human agents. Only because the farmer has sold his wheat is the weaver able to sell her linen, only because the weaver has sold her linen is our rash and intemperate friend able

Andererseits entwickelt sich ein ganzer Kreis von den handelnden Personen unkontrollierbarer, gesellschaftlicher Naturzusammenhänge. Der Weber kann nur Leinwand verkaufen, weil der Bauer Weizen, Heißsporn nur die Bibel, weil der Weber Leinwand, der Destillateur nur gebranntes Was-

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to sell his Bible, and only because the latter already has the water of everlasting life is the distiller able to sell his eau-de-vie. And so it goes on.

ser, weil der andre das Wasser des ewigen Lebens bereits verkauft hat usw.

[Circulation Sweats out Money] Third difference: While the individual C–M–C dies down and must be renewed (Marx will say this in 124:1/o and 160:2–3), the circulation process itself perpetuates itself because it “sweats out money.”

122:2 The circulation process, therefore, does not die down, as the direct barter does, with the change of places or change of hands of the use-values. When the money finally drops out of the series of metamorphoses undergone by a commodity, this does not mean that it vanishes. It always stays behind at a point in the arena of circulation vacated by the commodities. In the complete metamorphosis of the linen, for example, linen—money—Bible, the linen first falls out of circulation, and money steps into its place. Then the Bible falls out of circulation, and again money takes its place. When one commodity replaces another, the money commodity always sticks to the hands of some third person.⁷² Circulation sweats money from every pore.

126:4/o Der Zirkulationsprozeß erlischt deswegen auch nicht, wie der unmittelbare Produktaustausch, in dem Stellen- oder Händewechsel der Gebrauchswerte. Das Geld verschwindet nicht, weil es schließlich aus der Metamorphosenreihe einer Ware herausfällt. Es schlägt immer nieder auf eine durch die Waren geräumte Zirkulationsstelle. Z.B. in der Gesamtmetamorphose der Leinwand: Leinwand—Geld—Bibel fällt erst die Leinwand aus der Zirkulation, Geld tritt an ihre Stelle, fällt dann die Bibel aus der Zirkulation, Geld tritt an ihre Stelle. Der Ersatz von Ware durch Ware läßt zugleich an dritter Hand die Geldware hängen.⁷² Die Zirkulation schwitzt beständig Geld aus.

Fowkes’s “the process of circulation does not disappear

from view” is again an epistemic twist.

↑ Connected with this (although Marx does not say this here): in circulation, crises are possible, in direct barter they aren’t.

⁷² This phenomenon may be self-evident, but it is in most cases overlooked by political economists, especially by the average free-trader.

⁷² Note zur 2. Ausg. So handgreiflich dies Phänomen ist, wird es dennoch von politischen Ökonomen meist übersehen, namentlich vom Freihändler vulgaris.

[Say’s Law: The Unity and Opposition between C–M and M–C]

The concluding passage of section 3.2.a shows the fallacy and also the kernel of truth in Say’s law. From the inner unity of sale and purchase, Say’s law concludes that there can be no general crisis of overproduction. This is easy to refute, but Marx wants to do more than *refute* Say’s law. Marx brings a correct dialectical analysis of the relationship between C–M and M–C. If one formulates Say’s law with the words that the *inner* unity of sale and purchase makes crises *impossible*, then the result of Marx’s analysis is that the *immediate* unity of sale and purchase makes crises *possible*, although real crises need conditions going beyond commodity circulation.

This passage begins with a formulation of Say’s law, which falsely collapses the contradictory relation between C–M and M–C into an immediate global unity. Its easy refutation

belongs into logics, not economics, as Marx says in *Contribution*, 332:2–333. In *Capital*, Marx gives an immanent critique of Say’s law. He considers it a dialectical conclusion, although a faulty one, and embeds his critique of Say’s law in a correct discussion of the identity, polarity, unity, and contradiction between sale and purchase in the circulation process.

[Refutation of Say’s Law] Say’s Law does not originally come from Say but was formulated before him by James Mill. In *Contribution*, 332:2–333, Marx quotes and translates Mill as follows:

“Whatever ... be the amount of the annual produce, it never can exceed the amount of the annual demand ... Of two men who perform an exchange, the one does not come with only a supply, the other with only a demand; each of them comes with both a demand and a supply ... The supply which he brings is the instrument of his demand and his demand and supply are of course exactly equal to one another. It is, therefore, impossible that there should ever be in any country a commodity or commodities in quantity greater than the demand, without there being, to an equal amount, some other commodity or commodities in quantity less than the demand.”

„Es kann nie einen Mangel an Käufern für alle Waren geben. Wer immer eine Ware zum Verkauf darbietet, verlangt eine Ware im Austausch dafür zu erhalten, und ist daher Käufer durch das bloße Faktum, daß er Verkäufer ist. Käufer und Verkäufer aller Waren zusammengenommen, müssen sich daher durch eine metaphysische Notwendigkeit das Gleichgewicht halten. Wenn daher mehr Verkäufer als Käufer von einer Ware da sind, muß es mehr Käufer als Verkäufer von einer andern Ware geben.“

Marx will cite this text later on, but it is useful to have it available right at the beginning. Marx begins with a flat-out denunciation of the ideas expressed in the above passage, which was known as “Say’s law” already at Marx’s time. Although Marx calls it here a “silly dogma,” he is going to give a serious refutation which also highlights what is correct in this law.

123:1/o Nothing can be sillier than the dogma that, because every sale is a purchase and every purchase a sale, the circulation of commodities necessarily implies an equilibrium between sales and purchases.

127:1/o Nichts kann alberner sein als das Dogma, die Warenzirkulation bedinge ein notwendiges Gleichgewicht der Verkäufe und Käufe, weil jeder Verkauf Kauf und vice versa.

↑ But this is, of course, exactly the argument of the above passage, which these Annotations will call “Say’s law”: the buyer gives money into the hands of the sellers and therefore enables them to buy the commodity which the buyer has to sell. In other words, Say’s law tries to make an inference from the direct identity of sale and purchase to an equilibrium between sales and purchases.

Marx’s goal is not only to refute this version of Say’s law but also to correctly develop the dialectical connection between sales and purchases. ↓ Marx’s first question is: is there an immediate unity of sales and purchases?

If this means that the number of actual sales accomplished is equal to the number of purchases, it is a flat tautology.

Meint dies, daß die Zahl der wirklich vollzogenen Verkäufe gleich derselben Zahl von Käufen, so ist es platte Tautologie.

↑ Since every purchase is a sale, a count of all purchases will arrive at the same number as a count of all sales. Marx calls this a “tautology,” and ↓ James Mill in fact wanted to show

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something much more relevant and far-reaching:

But it purports to show that every seller brings his own buyer to market with him. Nothing of the kind.

Aber es soll beweisen, daß der Verkäufer seinen eignen Käufer zu Markt führt.

The Fowkes translation “but its real intention is” is incorrect.

The little sentence “nothing of the kind” (announcing the proof) is

absent in the German 4th and the French editions.

After these denunciations Marx looks at the situation in more detail. Sale and purchase are at the same time identical acts and opposite poles. This is a contradiction. Marx re-describes their relationship in such a way that it is no longer a logical contradiction: “being identical” and “being opposite poles” is now distributed over the transactors and the transaction itself:

Sale and purchase constitute one identical act, as an interaction between two persons assuming opposite roles like two poles, the commodity owner and the money owner.

Verkauf und Kauf sind ein identischer Akt als Wechselbeziehung zwischen zwei polarisch entgegengesetzten Personen, dem Warenbesitzer und dem Geldbesitzer.

↑ If you look at sale and purchase as two sides of one and the same transaction between two persons, then there is an ambiguity whether this transaction is a sale or a purchase; it is a sale for one and a purchase for the other. Marx said this already in 118:1. But there is no ambiguity regarding the role of the transactors: one is a seller and the other a buyer.

They constitute two acts of polar and opposite characters when carried out by one and the same person.

Sie bilden zwei polarisch entgegengesetzte Akte als Handlungen derselben Person

↑ By contrast, if you follow one person who first sells and then buys, then it is unambiguous which of these acts is a sale and which is a purchase. They form polar opposites. However all we can say about the person is that she is both a seller and a buyer; she sells first and then buys. Marx calls her simply “one and the same person.”

One might say that in the first situation, sale and purchase form an immediate unity, and in the second situation, they are two polar acts which are bound together by an inner unity. ↓ Since Say’s law is an attempt to conclude from the immediate unity to the inner unity, Marx looks carefully at all the implications that can be drawn from this immediate unity:

The identity of sale and purchase implies therefore that the commodity is useless if, on being thrown into the alchemistical retort of circulation, it does not come out again in the shape of money, i.e., if it is not sold by the commodity owner, i.e., bought by the money owner.

Die Identität von Kauf und Verkauf schließt daher ein, daß die Ware nutzlos wird, wenn sie, in die alchemistische Retorte der Zirkulation geworfen, nicht als Geld herauskommt, nicht vom Warenbesitzer verkauft, daher vom Geldbesitzer gekauft wird.

↑ The commodity is not only useless for its producer or seller, but it cannot be used by anyone at all if it does not emerge from circulation as money. The transaction which moves the commodity into the hands of its final consumer is at the same time the realization of the value produced by the producer. The two sides of the transaction—realization of value and selection of use-value by the consumer—are inseparably bound together; one cannot be done without the other. If values cannot be realized, then use-values rot.

In other words, this is too close a link between the use-value side and the value side. Use-values are the hostages of values. ↓ Having a too close link also means that the process can be interrupted before it is finished:

That identity further implies that the process, if it reaches fruition, constitutes a point of rest, an interval, long or short, in the life of the commodity. Since the first metamorphosis of a commodity is at once a sale and a purchase, this partial process is at the same time an independent process in itself. The buyer has the commodity, the seller has the money, i.e., a commodity which remains in a form capable of circulating, whether it reappears on the market at an earlier or later date.

Jene Identität enthält ferner, daß der Prozeß, wenn er gelingt, einen Ruhepunkt, einen Lebensabschnitt der Ware bildet, der länger oder kürzer währen kann. Da die erste Metamorphose der Ware zugleich Verkauf und Kauf, ist dieser Teilprozeß zugleich selbständiger Prozeß. Der Käufer hat die Ware, der Verkäufer hat das Geld, d.h. eine Ware, die zirkulationsfähige Form bewahrt, ob sie früher oder später wieder auf dem Markt erscheine.

↑ Marx apparently uses here a logical rule according to which something, in order to have an independent existence, must contain its opposite in itself. He does not justify it by an appeal to a general rule but by looking at the specifics of the situation.

I came up with the following story to illustrate this principle. Linen weaver and tailor agree to exchange 20 yards of linen for a coat. When the linen weaver tries on the coat it turns out it is a little too small. The tailor says: "I have a bigger coat in my shop, it is almost finished, I can finish it tonight." So he writes the linen weaver a receipt for her linen, which says: "received today 20 yards of linen and will give you a coat for it tomorrow." And on the next day he brings the coat over to the linen weaver. Here the barter transaction was interrupted. The linen changed hands today, but the coat needed an extension and was scheduled to change hands tomorrow. The transaction is unfinished, it must be finished on the next day. Had the tailor given *money* to the weaver instead of the receipt and promise to deliver the coat, then the transaction had been a finished transaction already on the first day, and there would have been no necessity for the tailor to go to the weaver on the next day to deliver the coat.

↓ The next two sentences summarize Marx's arguments on level [(P)], as practical actions, stripping off the reflections about the form side of these transaction, which had weighed down the previous passage.

No one can sell unless someone else purchases. But no one is forthwith bound to purchase, because he has just sold.

Keiner kann verkaufen, ohne daß ein anderer kauft. Aber keiner braucht unmittelbar zu kaufen, weil er selbst verkauft hat.

↑ A modern reader with little experience in depth thinking might conclude now that this independence of the acts makes Say's law invalid. There is no need to purchase again right away because even after many years the same money will still be able to make purchases. Marx would say: "not so fast. If you pounce on Say's law now you are missing the kernel of truth in Say's law." Marx's next step in the development of the dialectic between M-C and C-M is: The lack of a surface constraint chaining M-C and C-M together has its positive sides.

[Transcending the Limitations of Barter and Crisis] Marx is not satisfied with refuting Say's law by showing that it contains a logical flaw. This law has been promoted by several economists. In order to dig out the kernel of truth in this law, Marx tries to make a complete discussion of the unity and polarity of sale and purchase. ↓ The first thing he discovers is: It is a good thing that sale and purchase are not chained together but can be separated in time and space.

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Circulation bursts through all the temporal, spatial, and individual barriers imposed by the direct exchange of products, and it does this by splitting up the direct identity present in the barter between the exchange of one's own product and the acquisition of someone else's into the two antithetical segments of sale and purchase.

Die Zirkulation sprengt die zeitlichen, örtlichen und individuellen Schranken des Produktaustausches ebendadurch, daß sie die hier vorhandne unmittelbare Identität zwischen dem Austausch des eignen und dem Eintausch des fremden Arbeitsprodukts in den Gegensatz von Verkauf und Kauf spaltet.

Marx says two things here:

1. Sale and purchase form an inner unity because they originate from splitting up the exchange process into two.
2. This splitting-up enables circulation to burst through any restrictions as to time, place, and individual.

In the French, the connection between points 1 and 2 is a little clearer:

After having sold, I am not forced to buy, neither at the same place, nor at the same time, nor from the same person to whom I have sold.

The greater flexibility is a good thing. But this splitting-up also has its downside.

[Possibility of Crisis] Marx arrives at this downside by a perspectival switch: the *unity* of opposites is also a unity of *opposites*.

To say that these two independent and antithetical processes have an intrinsic unity, are essentially one, is the same as to say that this intrinsic oneness expresses itself in an external antithesis.

Daß die selbständig einander gegenüberstehenden Prozesse eine innere Einheit bilden, heißt ebensosehr, daß ihre innere Einheit sich in äußeren Gegensätzen bewegt.

In French this statement is less interconnected: "It is true that purchase is the necessary complement of sale; but it is no less true that their unity is the unity of opposites."

Say's Law concludes from the *inner* unity of sale and purchase that there will be equilibrium in the sphere of circulation, i.e., that crises are not possible. ↓ Marx comes to the opposite conclusion, namely that crises *are* possible, exactly because the inner unity is *not* echoed by an exterior constraint in circulation. This leniency of circulation should not surprise us; it is exactly the point of the circulation process to give the contradictory opposites in a direct barter room to move.

If therefore the externally independent evolution of two processes—which have an internal connection because they complement each other—proceeds to a certain point, their unity violently makes itself felt by producing—a crisis.

Geht die äußerliche Verselbständigung der innerlich Unselbständigen, weil einander ergänzenden, bis zu einem gewissen Punkt fort, so macht sich die Einheit gewaltsam geltend durch eine—Krise.

This is a definition of crisis.

Exam Question 561 How does Marx define a crisis? 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007SP, 2005fa.

Term Paper Topic 563 *Marxist Perspectives on the 2008 Financial Meltdown and the developments since then.* [2013fa](#), [2012fa](#), [2011fa](#), [2009fa](#), [2008fa](#).

The externally independent representation of two aspects that form an inner unity has therefore two results: it allows circulation to burst through all restrictions of time and place, but it also contains the possibility of crises.

Here the discussion of crises breaks off for now, to be resumed in the dramatic and famous section [148:2/o](#). A more extensive discussion of the concept of crisis can be found in the last two sentences of [\[mecw32\]139/o](#), and the end of [\[mecw32\]144:0](#), which has a more comprehensive definition than the one given here, namely, also the forcible separation of moments which have been combined although they do not belong together. See also *Grundrisse* 341:3–343:3, where this separation and reunification is formulated in terms of “forgetting” and “reminder.”

↓ Right now, Marx gives a concluding summary explaining that we arrived at the *possibility* of crisis but the dialectical development of circulation does not allow us to decide whether or not crises will in fact occur. The actuality of crises cannot be derived from the laws of circulation:

Immanent in the commodity there is an antithesis between use-value and value, between private labor which must simultaneously manifest itself as directly social labor, and a particular concrete kind of labor which simultaneously counts as merely abstract general labor, between the personification of things and the reification of persons. This immanent contradiction obtains its developed forms of motion in the antithetical phases of the metamorphosis of the commodity.

Der der Ware immanente Gegensatz von Gebrauchswert und Wert, von Privatarbeit, die sich zugleich als unmittelbar gesellschaftliche Arbeit darstellen muß, von besonderer konkreter Arbeit, die zugleich nur als abstrakt allgemeine Arbeit gilt, von Personifizierung des Sache und Versachlichung der Personen—dieser immanente Widerspruch erhält in den Gegensätzen der Warenmetamorphose seine entwickelten Bewegungsformen.

↑ Marx enumerates the three peculiarities of the equivalent form, see [66:3](#), and adds the fetish-like character as fourth peculiarity, as was done in *Contribution*. ↓ Being the forms of motion of a contradiction, these forms do not *resolve* the contradiction. The contradiction is preserved in these forms containing the possibility of crisis.

These forms therefore imply the possibility of crises, though no more than the possibility. For the development of this possibility into actuality a whole series of relations is required, which do not yet exist from the standpoint of the simple circulation of commodities.⁷³

Diese Formen schließen daher die Möglichkeit, aber auch nur die Möglichkeit der Krisen ein. Die Entwicklung dieser Möglichkeit zur Wirklichkeit erfordert einen ganzen Umkreis von Verhältnissen, die vom Standpunkt der einfachen Warencirkulation noch gar nicht existieren.⁷³

↑ We can see here only the cracks in the system where crises can develop, we do not yet see the forces which promote crises, because the antithetical character of circulation is not a deep enough contradiction.

To sum up, it is easy to show the logical fallacy in Say’s law. It is more difficult to give a correct treatment of the unity and opposition of sale and purchase, which Say’s law falsely collapsed into a unity. The fact that each sale is at the same time a purchase does not lead to a “metaphysical unity” of sales and purchases, but

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- It allows commodity circulation to transcend the local and temporal constraint in barter of both goods having to be present at the same time and place
- This globalization of commodity relations diminishes the control which individual producers can have on the market
- Monetized commodity circulation contains the possibility of crisis, but not the necessity of crisis.

The last point here, that commodity circulation does not make crises necessary, is the kernel of truth in Say's law which, on its face, is a simple logical fallacy.

↓ The footnote finally reveals the source of the theory Marx criticizes here, which is quoted in *Contribution*, 332:2–333.

⁷³ See my observations on James Mill in *A Contribution to the Critique etc.*, pp. 74–6.

⁷³ Vergleiche meine Bemerkungen über James Mill, „Zur Kritik etc.“, p. 74–6.

↑ Marx's critique of what is nowadays known as Say's law was directed at a formulation of this law by James Mill. ↓ The footnote continues with an explanation why this false theory (Say's law) is so widely considered correct: because it is an apology of capitalism. Marx supports this claim by the observation that the proof of Say's law uses methods typical of the apologetics of capitalism. It is a known tactic of apologetics to say that the only contradictions plaguing capitalism are those of commodity circulation.

^{73 ctd} There are two points here which are characteristic of the methods of the bourgeoisie's economic apologists. The first is the identification of the circulation of commodities with the direct exchange of products, achieved by simply abstracting from their differences. The second is the attempt to deny the contradictions of the capitalist production process by dissolving the relations of the agents of capitalist production into the simple relationships arising from the circulation of commodities. The production and circulation of commodities are however phenomena which are to be found in the most diverse modes of production, even if they vary in extent and importance. If we are only familiar with the abstract categories of circulation, which are common to all of them, we cannot know anything of their *differentia specifica*, and we cannot therefore pronounce judgement on them. In no other science are elementary commonplaces mouthed with more self-importance than in political economy. For instance, J. B. Say sets himself up as a judge of crises because he knows that a commodity is a product.

^{73 ctd} Zwei Punkte sind hier charakteristisch für die Methode der ökonomistischen Apologetik. Erstens die Identifizierung von Warenzirkulation und unmittelbarem Produktaus-tausch durch einfache Abstraktion von ihren Unterschieden. Zweitens der Versuch, die Widersprüche des kapitalistischen Produktionsprozesses wegzuleugnen, indem man die Verhältnisse seiner Produktionsagenten in die einfachen Beziehungen auflöst, die aus der Warenzirkulation entspringen. Warenproduktion und Warenzirkulation sind aber Phänomene, die den verschiedensten Produktionsweisen angehören, wenn auch in verschiedenem Umfang und Tragweite. Man weiß also noch nichts von der *differentia specifica* dieser Produktionsweisen und kann sie daher nicht beurteilen, wenn man nur die ihnen gemeinschaftlichen, abstrakten Kategorien der Warenzirkulation kennt. In keiner Wissenschaft außer der politischen Ökonomie herrscht so große Wichtigtuerei mit elementarischer Gemeinplät-zlichkeit. Z.B. J. B. Say nimmt sich heraus, über die Krisen abzuurteilen, weil er weiß, daß die Ware Produkt ist.

Question 564 Marx said that the resolution of a real contradiction does not consist in its abolition but in the provision of “room in which it can move.” How does the metamorphosis of the commodity $C - M - C$ provide room for the contradictions of the direct barter, and in which respect does it still contain the possibility of crises? 2008fa.

Question 565 Describe how and why commodity circulation contains the possibility of crisis. 2013fa, 2009fa, 2008fa, 2007SP, 2005fa, 2004fa, 2002fa, 1999SP, 1998WI.

In the fourth German edition, the following paragraph provides a transition to the next subsection:

As mediator of the circulation of commodities, money obtains the function of means of circulation.

128:1 Als Vermittler der Warenzirkulation erhält das Geld die Funktion des Zirkulationsmittels.

This short paragraph should be on p. 209:1 in the Vintage edition, but it is not. Did they forget to typeset it?

3.2.b. The Flow of Money

The first section of chapter Three, section 3.1, discussed money as a measure of value, and the corresponding relative form of value, namely, the price form of commodities. We are in the middle of the second section 3.2, which shows how these forms give rise to a process. In subsection 3.2.a, this process was looked at from the angle of the commodity. Now it will be looked at from the angle of money.

[Form Change of Commodity both Mystified and Reflected by Money Flows]

↓ The form change $C - M - C$ of every individual commodity has been called *circulation* because it is a circle: the value held by the commodity owner putting his commodity up for sale returns to him in form of a different use-value.

124:1/o The succession of forms $C - M - C$, through which the metabolism of the products of labor is accomplished, requires that the same value which begins the process as commodity eventually returns to the same point as commodity. This movement of commodities is therefore a circle.

128:2/o Der Formwechsel, worin sich der Stoffwechsel der Arbeitsprodukte vollzieht, $W - G - W$, bedingt, daß derselbe Wert als Ware den Ausgangspunkt des Prozesses bildet und zu demselben Punkt zurückkehrt als Ware. Diese Bewegung der Waren ist daher Kreislauf.

The French translation [megaII/7]90:1 may be helpful:

The movement $C - M - C$, or the complete metamorphosis of a commodity, is circulatory in the sense that one and the same value, after having passed through a succession of forms, returns to its original form, the form of a commodity.

Le mouvement $M - A - M$, ou la métamorphose complète d'une marchandise, est circulaire en ce sens qu'une même valeur, après avoir subi des changements de forme, revient à sa forme première, celle de marchandise.

↓ On the other hand, this circulation of commodities is *not* a circulation of the money, but rather *prevents* money from circulating.

On the other hand, the form of this movement prevents money from flowing in a circle. The result of the movement is not the return of the money, but its continued removal further and further away from its starting-point. As long as the seller sticks fast to his money, which is the transformed shape

Andrerseits schließt dieselbe Form den Kreislauf des Geldes aus. Ihr Resultat ist beständige Entfernung des Geldes von seinem Ausgangspunkt, nicht Rückkehr zu demselben. Solange der Verkäufer die verwandelte Gestalt seiner Ware festhält, das Geld, befindet sich die Ware im Stadium

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of his commodity, that commodity is still at the stage of the first metamorphosis, in other words it has completed only the first half of its circulatory course. Once the process of selling in order to buy is complete the money again leaves the hands of its original possessor.

↓ The money *returns* (in the sense that the person who has spent the money gets it back) only if the circulation of commodities is *renewed*. This return is only due to the renewal of the process, not the process itself, and it is only temporary and turns into another displacement once the renewed process is completed:

It is true that if the weaver, having bought the Bible, sells more linen, then money comes back into her hands. But this return is not a result of the circulation of the first 20 yards of linen; that circulation rather removed money from the hands of the weaver and placed it in those of the Bible-pusher. The return of money to the weaver results only from the renewal or repetition of the same process of circulation with a fresh commodity, and it ends in the same way as the previous process.

↓ Marx therefore does not call it “circulation” of money but uses the more neutral term “flow” of money.

Hence the form of motion directly imparted on money by the circulation of commodities is that of a constant removal from its starting-point, a movement from the hands of one commodity-owner into those of the next. This path we will call its flow (currency, *cours de la monnaie*).

der ersten Metamorphose oder hat nur ihre erste Zirkulationshälfte zurückgelegt. Ist der Prozeß, verkaufen um zu kaufen, vervollständigt, so ist auch das Geld wieder aus der Hand seines ursprünglichen Besitzers entfernt.

Allerdings, wenn der Leinweber, nachdem er die Bibel gekauft, von neuem Leinwand verkauft, kehrt auch das Geld in seine Hand zurück. Aber es kehrt nicht zurück durch die Zirkulation der ersten 20 Ellen Leinwand, wodurch es vielmehr aus den Händen des Leinwebers in die des Bibelverkäufers entfernt ist. Es kehrt nur zurück durch die Erneuerung oder Wiederholung desselben Zirkulationsprozesses für neue Ware und endet hier wie dort mit demselben Resultat.

Die dem Geld durch die Warenzirkulation unmittelbar erteilte Bewegungsform ist daher seine beständige Entfernung vom Ausgangspunkt, sein Lauf aus der Hand eines Warenbesitzers in die eines andren, oder sein Umlauf (currency, *cours de la monnaie*).

Exam Question 567 *Why does Marx call the process of buying and selling a circulation of commodities but not a circulation of money?*

A closer look at the movement which the metamorphosis $C - M - C$ imparts on the money shows that the true nature of the process is mystified in this movement, i.e., the appearance is just the opposite of what is actually going on.. Marx identifies here two mystifications, which we will call (a) and (b), and then he will show that despite this mystification, the appearance also reveals a kernel of truth about the underlying process, which we will call (c) and (d).

(a) Money always does the same thing, while the commodity does two different things. It is therefore not visible, from the movement of money, that the circulation of each commodity consists of two phases.

125:1/o The circulation of money shows the constant and monotonous repetition of the same process. The commodity is al-

129:1/o Der Umlauf des Geldes zeigt beständige, eintönige Wiederholung desselben Prozesses. Die Ware steht stets auf Sei-

ways in the hands of the seller; the money, as a means of purchase, always in the hands of the buyer. It functions as means of purchase by realizing the price of the commodity. While realizing the commodity's price, it transfers the commodity from the seller to the buyer and at the same time removes itself from the hands of the buyer into those of the seller. There, it repeats the same process with a different commodity. The origin of this one-sided form of motion of the money in the two-sided progression of the commodity through its forms is hidden from view.

↓ How did this semblance arise of exactly the opposite of what is really happening?

The very nature of the commodity circulation produces a semblance of the opposite of itself. The first metamorphosis of a commodity is visible not only as the money's movement, but also as that of the commodity itself; its second metamorphosis, however is only visible as the movement of the money. In the first phase of its circulation the commodity changes places with the money. Thereupon the commodity, in its shape as an object of utility, falls out of circulation into consumption.⁷⁴ Its value-shape or monetary larva steps into its shoes. It then passes through the second phase of its circulation, no longer in its own bodily skin, but in its gold skin.

⁷⁴ Even if the commodity is sold over and over again, a situation which does not yet exist for us here, it falls, when definitely sold for the last time, out of the sphere of circulation into that of consumption, where it serves either as means of subsistence or as means of production.

(b) This deeper look ↑ at the origin of the first mystification reveals a second mystification:

With this, the continuity of the movement lies entirely with the money, and the same movement which, for the commodity, includes two opposite processes, is, when considered as the movement of the money, always one and the same process, a constant change of places with commodities that are always different. Hence the result of the circulation of commodities, namely the replacement of one commodity by an-

te des Verkäufers, das Geld stets auf Seite des Käufers, als Kaufmittel. Es funktioniert als Kaufmittel, indem es den Preis der Ware realisiert. Indem es ihn realisiert, überträgt es die Ware aus der Hand des Verkäufers in die Hand des Käufers, während es sich gleichzeitig aus der Hand des Käufers in die des Verkäufers entfernt, um denselben Prozeß mit einer andren Ware zu wiederholen. Daß diese einseitige Form der Geldbewegung aus der doppelseitigen Formbewegung der Ware entspringt, ist verhüllt.

Die Natur der Warenzirkulation selbst erzeugt den entgegengesetzten Schein. Die erste Metamorphose der Ware ist nicht nur als Bewegung des Geldes, sondern als ihre eigne Bewegung sichtbar, aber ihre zweite Metamorphose ist nur als Bewegung des Geldes sichtbar. In ihrer ersten Zirkulationshälfte wechselt die Ware den Platz mit dem Geld. Damit fällt zugleich ihre Gebrauchsgestalt aus der Zirkulation heraus, in die Konsumtion.⁷⁴ Ihre Wertgestalt oder Geldlarve tritt an ihre Stelle. Die zweite Zirkulationshälfte durchläuft sie nicht mehr in ihrer eignen Naturalhaut, sondern in ihrer Goldhaut.

⁷⁴ Selbst wenn die Ware wieder und wieder verkauft wird, ein Phänomen, das hier noch nicht für uns existiert, fällt sie mit dem letzten definitiven Verkauf aus der Sphäre der Zirkulation in die der Konsumtion, um hier als Lebensmittel oder als Produktionsmittel zu dienen.

Die Kontinuität der Bewegung fällt damit ganz auf die Seite des Geldes und dieselbe Bewegung, die für die Ware zwei entgegengesetzte Prozesse einschließt, schließt als eigne Bewegung des Geldes stets denselben Prozeß ein, seinen Stellenwechsel mit stets andrer Ware. Das Resultat der Warenzirkulation, Ersatz von Ware durch andre Ware, erscheint daher nicht durch ihren eignen Formwechsel vermittelt, sondern

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other, appears not to have been mediated by its own change of form, but rather by the function of money as means of circulation. As means of circulation, money circulates commodities, which in and for themselves lack the power of movement, and transfers them from hands in which they are non-use-values into hands in which they are use-values; and this process always takes the opposite direction to the path of the commodities themselves. Money constantly removes commodities from the sphere of circulation, by constantly stepping into their place in circulation, and in this way continually moving away from its own starting-point. Hence although the movement of money is merely the expression of the circulation of commodities, the situation appears as the reverse of this, namely the circulation of commodities appears as the result of the movement of money.⁷⁵

↑ The second mystification is that money seems to be pushing the inert commodities around, while in reality, the commodities are active and money is passive. ↓ In the footnote, Le Trosne says the same thing which Marx formulated as “the movement of money is merely the expression of the circulation of commodities.”

⁷⁵ ‘It [money] has no other motion than that with which it is endowed by the products’ (Le Trosne, [LT46, p. 885]).

durch die Funktion des Geldes als Zirkulationsmittel, welches die an und für sich bewegungslosen Waren zirkuliert, sie aus der Hand, worin sie Nicht-Gebrauchswerte, in die Hand überträgt, worin sie Gebrauchswerte, stets in entgegengesetzter Richtung zu seinem eignen Lauf. Es entfernt die Waren beständig aus der Zirkulationssphäre, indem es beständig an ihre Zirkulationsstelle tritt und sich damit von seinem eignen Ausgangspunkt entfernt. Obgleich daher die Geldbewegung nur Ausdruck der Warenzirkulation, erscheint umgekehrt die Warenzirkulation nur als Resultat der Geldbewegung.⁷⁵

⁷⁵ „Es“ (das Geld) „hat keine andere Bewegung als die, die ihm durch die Produkte verliehen wird.“ Le Trosne, [LT46, p. 885].

Question 568 *Marx argues that, despite appearances, money does not push inert commodities around, but the movement of commodities is the result of their own form change. Is it therefore wrong to say that money functions as means of circulation?*

↓ After showing how the flow of money misrepresents (or, rather, represents as their opposites) two important aspects of the circulation of the commodity, Marx gives a very abstract argument why the movement of money must also somehow *reflect* the underlying process.

126:1 On the other hand, money obtains the function of means of circulation only because in it the value possessed by commodities has taken on an independent shape. Hence its movement, as the medium of circulation, is in fact merely the movement undergone by commodities while changing their form. This fact must therefore make itself plainly visible in the circulation of money.

130:1 Andererseits kommt dem Geld nur die Funktion des Zirkulationsmittels zu, weil es der verselbständigte Wert der Waren ist. Seine Bewegung als Zirkulationsmittel ist daher in der Tat nur ihre eigne Formbewegung. Diese muß sich daher auch sinnlich im Umlauf des Geldes widerspiegeln.

↑ The argument is here: money is the independent objectification of the value of the commodity. Therefore the form change of this value must be reflected in the money. ↓

Indeed, money moves twice, and each movement corresponds to a phase in the commodity circulation. Marx illustrates this with the linen–Bible example:

Thus the linen, for instance, first of all changes its commodity-form into its money form. The final term of its first metamorphosis $C - M$, the money form, then becomes the first term of its final metamorphosis $M - C$, its transformation back into the shape of the Bible. But each of these two changes of form is accomplished by an exchange between commodity and money, by their reciprocal displacement. The same pieces of coin come into the seller's hand as the alienated form of the commodity and leave it as the commodity in its absolutely alienable form. They are displaced twice. The first metamorphosis of the linen puts these coins into the weaver's pocket, the second draws them out of it.

So verwandelt z.B. die Leinwand zuerst ihre Warenform in ihre Geldform. Das letzte Extrem ihrer ersten Metamorphose $W - G$, die Geldform, wird dann das erste Extrem ihrer letzten Metamorphose $G - W$, ihrer Rückverwandlung in die Bibel. Aber jeder dieser zwei Formwechsel vollzieht sich durch einen Austausch zwischen Ware und Geld, durch ihren gegenseitigen Stellenwechsel. Dieselben Geldstücke kommen als entäußerte Gestalt der Ware in die Hand des Verkäufers und verlassen sie als absolut veräußerliche Gestalt der Ware. Sie wechseln zweimal die Stelle. Die erste Metamorphose der Leinwand bringt diese Geldstücke in die Tasche des Webers, die zweite holt sie wieder heraus.

(c) From this Marx derives the first aspect how the expression is accurate:

The two opposite changes undergone by the same commodity are therefore reflected in the displacement, twice repeated but in opposite directions, of the same pieces of coin.

Die beiden entgegengesetzten Formwechsel derselben Ware spiegeln sich also wider im zweimaligen Stellenwechsel des Geldes in entgegengesetzter Richtung.

Exam Question 569 *If the commodity changes its form twice, does this mean it has three forms?*

↑ The two phases of the metamorphosis are correctly reflected in the double movement of money: it first enters the pockets of the seller, and then leaves them again. ↓ Of course the commodity seller may be tempted to keep the money in his pocket; but this leads to an interruption of the metamorphoses of commodities.

126:2/o If however only a one-sided metamorphosis takes place, if there are only sales or only purchases, then a given piece of money changes its place only once. Its second change of place always expresses the second metamorphosis of the commodity, its reconversion from money. The frequently repeated displacement of the same coins reflects not only the series of metamorphoses undergone by a single commodity, but also the mutual interlacing of the innumerable metamorphoses in the whole world of commodities.

130:2 Finden dagegen nur einseitige Warenmetamorphosen statt, bloße Verkäufe oder bloße Käufe, wie man will, so wechselt dasselbe Geld auch nur einmal den Platz. Sein zweiter Stellenwechsel drückt stets die zweite Metamorphose der Ware aus, ihre Rückverwandlung aus Geld. In der häufigen Wiederholung des Stellenwechsels derselben Geldstücke spiegelt sich wider nicht nur die Metamorphosenreihe einer einzigen Ware, sondern auch die Verschlingung der zahllosen Metamorphosen der Warenwelt überhaupt.

↑ (d) From this we can see a second aspect which is properly represented on the surface: if money runs smoothly from one seller to the next, this means that the metamorphoses of the different commodities are interlaced well with each other. ↓ At the end of this discussion Marx mentions that all this is, of course, only valid in the form $C - M - C$,

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It is in any case evident that all this is valid only for the simple circulation of commodities, the form we are considering here.

Es versteht sich übrigens ganz von selbst, daß alles dies nur für die hier betrachtete Form der einfachen Warenzirkulation gilt.

[Quantity of Money in Circulation]

After discussing how the circulation of money both mystifies and reflects the underlying metamorphoses of commodities, Marx looks now at the circulation of money as a process in its own right. The first question is: how much money is circulating?

127:1 Every commodity, when it first steps into circulation and undergoes its first change of form, does so only to fall out of circulation once more and be replaced again and again by fresh commodities. Money, on the contrary, as the medium of circulation, resides in the sphere of circulation and constantly moves around in it. The question therefore arises of how much money this sphere constantly absorbs.

131:1–2p Jede Ware, bei ihrem ersten Schritt in die Zirkulation, bei ihrem ersten Formwechsel, fällt aus der Zirkulation heraus, in welche stets neue Ware eintritt. Das Geld dagegen als Zirkulationsmittel haust beständig in der Zirkulationssphäre und treibt sich beständig in ihr um. Es entsteht also die Frage, wieviel Geld diese Sphäre beständig absorbiert.

↓ What follows now is Marx's derivation of the *equation of exchange*, about which [Bor87] has a good overview and also good historical references, except that Bordo does of course not mention Marx:

127:2a In a given country there take place every day at the same time, though in different places, numerous one-sided metamorphoses of commodities; in other words, simple sales on one hand, simple purchases on the other. In their prices, the commodities have already been equated with definite but imaginary quantities of money. And since, in the direct form of circulation being considered here, money and commodities always come into physical confrontation with each other, one at the positive pole of purchase, the other at the negative pole of sale, it is clear that the amount of means of circulation required is determined beforehand by the sum of the prices of all these commodities. As a matter of fact, the money is only the representation in real life of the quantity of gold previously expressed in the imagination by the sum of the prices of the commodities. It is therefore self-evident that these two quantities are equal.

131:2a In einem Lande gehn jeden Tag zahlreiche, gleichzeitige und daher räumlich nebeneinander laufende einseitige Warenmetamorphosen vor, oder in andren Worten, bloße Verkäufe von der einen Seite, bloße Käufe von der andren. In ihren Preisen sind die Waren bereits bestimmten vorgestellten Geldquantis gleichgesetzt. Da nun die hier betrachtete, unmittelbare Zirkulationsform Ware und Geld einander stets leiblich gegenüberstellt, die eine auf den Pol des Verkaufs, das andre auf den Gegenpol des Kaufs, ist die für den Zirkulationsprozeß der Warenwelt erheischte Masse von Zirkulationsmitteln bereits durch die Preissumme der Waren bestimmt. In der Tat stellt das Geld nur reell die in der Preissumme der Waren bereits ideell ausgedrückte Goldsumme dar. Die Gleichheit dieser Summen versteht sich daher von selbst.

↑ First equation: The sum of all money circulating is determined by the sum of prices of the commodities to be sold.

$$\sum p_i q_i = m \quad (3.1)$$

3.2. Means of Circulation

The analysis of the different determinations, developed in 118:1, or also in the first section 3.1 of chapter Three, leads here to concrete conclusions: Since money is only the actualization of the notionally already existing prices, and since money does not cause the commodities to circulate, but its movement is the reflection and result of this circulation, the sum of money in circulation is determined by the sum of prices of those commodities which go through their metamorphosis.

Question 570 *How does Marx come to the conclusion that the price sum of commodities determines the sum of money in circulation and not vice versa?*

Question 571 *Does the quantity of the means of circulation depend on the commodity prices, or do commodity prices depend on the quantity of the means of circulation? (Give separate answers for gold coins and for inconvertible paper money, and give Marx's arguments why the quantity theory of money is wrong.) 2005fa.*

Question 572 *How is, according to Ricardo, the value of gold coins determined? How did Marx criticize Ricardo's theory?*

Question 573 *Why can gold in its function as means of circulation be replaced by gold symbols (coins or other metals, or paper bills)? Can all gold thus be replaced?*

We have seen that the quantity of money does not determine the price level but, conversely, the price level determines the quantity of money. However there are also situations in which money causes prices to change: not by a change in its quantity but by a change in its value. Changes in the value of money will be discussed next in detail.

127:2b/o We know however that, the values of commodities remaining constant, their prices vary with the value of gold (the material of money), rising in proportion as it falls, and falling in proportion as it rises. Given that the sum of the prices of commodities falls or rises in this way, it follows that the quantity of money in circulation must fall or rise to the same extent. This change in the quantity of the circulating medium is certainly caused by the money itself, yet not in virtue of its function as a medium of circulation, but rather in virtue of its function as a measure of value. First the price of the commodities varies inversely as the value of the money, and then the quantity of the medium of circulation varies directly as the price of the commodities.

↑ A change in the value of money causes prices to change, and this price change then causes the quantity of money in circulation to change. ↓ To clarify this, Marx brings a related situation, in which it is obvious that the change in quantities comes after the change in prices, not before it:

Exactly the same phenomenon would arise if, for instance, instead of the value of gold

131:2b/o Wir wissen jedoch, daß bei gleichbleibenden Werten der Waren ihre Preise mit dem Werte des Goldes (des Geldmaterials) selbst wechseln, verhältnismäßig steigen, wenn er fällt, und fallen, wenn er steigt. Ob die Preissumme der Waren so steige oder falle, die Masse des zirkulierenden Geldes muß gleichmäßig steigen oder fallen. Der Wechsel in der Masse der Zirkulationsmittel entspringt hier allerdings aus dem Geld selbst, aber nicht aus seiner Funktion als Zirkulationsmittel, sondern aus seiner Funktion als Wertmaß. Der Preis der Waren wechselt erst umgekehrt wie der Wert des Geldes, und dann wechselt die Masse der Zirkulationsmittel direkt wie der Preis der Waren.

Ganz dasselbe Phänomen würde sich ereignen, wenn z.B. nicht der Wert des Goldes

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falling, silver were to replace it as the measure of value, or if, instead of the value of silver rising, it were to be driven out of its function as measure of value by gold. In the one case, more silver would be in circulation than there was previously gold, and in the other case, less gold would be in circulation than there was previously silver. In each case the value of the money material, i.e. the value of the commodity serving as the measure of value, would have undergone a change, and so too, therefore, would the prices of commodities which express their values in money, as well as the quantity of money which would need to be in circulation to realize those prices.

sänke, sondern Silber es als Wertmaß ersetzte, oder nicht der Wert des Silbers stiege, sondern Gold es aus der Funktion des Wertmaßes verdrängte. In dem einen Fall müßte mehr Silber zirkulieren als vorher Gold, in dem andren weniger Gold als vorher Silber. In beiden Fällen hätte sich der Wert des Geldmaterials verändert, d.h. der Ware, die als Maß der Werte funktioniert, daher der Preisausdruck der Warenwerte, daher die Masse des zirkulierenden Geldes, das zur Realisierung dieser Preise dient.

Now return to the original problem: what happens when the value of money changes? When Marx writes in the next sentence “we have already seen,” he is referring back to 118:2/o, or is it 102:1?

We have already seen that the sphere of circulation has a hole in it, through which gold (or silver, or the money material in general) enters as a commodity with a given value.

Man hat gesehen, daß die Zirkulationssphäre der Waren ein Loch hat, wodurch Gold (Silber, kurz das Geldmaterial) in sie eintritt als Ware von gegebenem Wert.

When the money commodity enters through this hole, its value is *given*.

When money begins to function as a measure of value, when it is used to determine prices, its value is presupposed.

Dieser Wert ist vorausgesetzt bei der Funktion des Geldes als Wertmaß, also bei der Preisbestimmung.

⇓ Now an interesting discussion of the adjustment process if the value of the money commodity falls:

If that value falls, the fall first shows itself in a change in the prices of those commodities which are directly exchanged with the precious metals at their source.

Sinkt nun z.B. der Wert des Wertmaßes selbst, so erscheint dies zunächst im Preiswechsel der Waren, die unmittelbar an den Produktionsquellen der edlen Metalle mit ihnen als Waren ausgetauscht werden.

The prices in vicinity of the gold production are the first to reflect this changed value of gold.

The greater part of all other commodities, especially at the less developed stages of bourgeois society, will continue for a long time to be estimated in terms of the former value of the measure of value, which has now become antiquated and illusory. Nevertheless, one commodity infects another through their common value relation, so that their prices, expressed in gold or silver, gradually settle down into the proportions determined by their comparative values, un-

Namentlich in minder entwickelten Zuständen der bürgerlichen Gesellschaft wird ein großer Teil der andren Waren noch längere Zeit in dem nun illusorisch gewordenen, veralteten Wert des Wertmaßes geschätzt werden. Indes steckt die eine Ware die andre an durch ihr Wertverhältnis zu derselben, die Gold- oder Silberpreise der Waren gleichen sich allmählich aus in den durch ihre Werte selbst bestimmten Proportionen, bis schließlich alle Warenwerte dem neuen Wert des

til finally the values of all commodities are estimated in terms of the new value of the monetary metal.

Geldmetalles entsprechend geschätzt werden.

But something else is happening too, and this other aspect of the same thing again leads to mystification:

This process of equalization is accompanied by a continued increase in the quantity of the precious metals, owing to the influx needed to replace the commodities directly exchanged with them. In proportion therefore as the adjusted prices of the commodities become general, in proportion as their values come to be estimated according to the new value of the metal (which has fallen and may, up to a certain point, continue to fall), in that same proportion does the increased mass of metal which is necessary for the realization of the new prices become available.

Dieser Ausgleichungsprozeß ist begleitet von dem fortwährenden Wachstum der edlen Metalle, welche im Ersatz für die direkt mit ihnen ausgetauschten Waren einströmen. In demselben Maß daher, worin die berichtigte Preisgebung der Waren sich verallgemeinert, oder ihre Werte dem neuen, gesunkenen und bis zu einem gewissen Punkt fortsinkenden Wert des Metalls gemäß geschätzt werden, ist auch bereits seine zu ihrer Realisierung notwendige Mehrmasse vorhanden.

↓ This sequence of events is open to misinterpretation. since the higher quantity of money precedes the higher prices, the quantity theory of money seems vindicated. The quantity theory offers a much simpler alternative to Marx's rather complicated explanation.

A one-sided observation of the events which followed the discovery of fresh supplies of gold and silver led some people in the seventeenth and more particularly in the eighteenth century to the false conclusion that the prices of commodities had risen because there was more gold and silver acting as the means of circulation.

Einseitige Beobachtung der Tatsachen, welche der Entdeckung der neuen Gold und Silberquellen folgten, verleitete im 17. und namentlich im 18. Jahrhundert zum Trugschluß, die Warenpreise seien gestiegen, weil mehr Gold und Silber als Zirkulationsmittel funktionierten.

This is the end of the digression about changes in the value of the money commodity.

Henceforth we shall assume the value of gold as a given factor, as in fact it is if we take it at the moment when we estimate the price of a commodity.

Im folgenden wird der Wert des Goldes als gegeben vorausgesetzt, wie er in der Tat im Augenblick der Preisschätzung gegeben ist.

Question 575 *If the value of gold changes, then events happen which can easily be misinterpreted to mean that prices rise because the quantity of gold rises. What are these events?*

Question 576 *If gold is the money commodity, doesn't that mean that so much gold will be mined that it would never be possible to use it all if one wanted to use it?*

Question 577 *What would have happened that Alchemists in the Middle Ages had been successful in producing gold with simple means? What did their error consist in?*

After this digression about prices, Marx returns to his derivation of the equation of exchange.

128:1/o On this assumption, then, the quantity of the medium of circulation is de-

132:1 Unter dieser Voraussetzung also ist die Masse der Zirkulationsmittel durch die

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terminated by the sum of the prices to be realized. If we now further assume that the price of each commodity is given, the sum of the prices clearly depends on the total amount of commodities found in circulation.

In formulas, this dependence can be written as $\sum p_i q_i = m$.

We do not need to rack our brains to grasp that if our quarter of wheat costs £2, 100 quarters will cost £200, 200 quarters £400, and so on, and therefore that the quantity of money which changes places with the wheat, when it is sold, must increase as the quantity of the wheat increases.

↑ Marx takes the equation $\sum p_i q_i = m$ and varies q_i while keeping p_i fixed. If the prices of the commodities are fixed, then the mass of means of circulation is determined by the mass of commodities. ↓ Next Marx keeps q_i fixed but varies p_i :

129:1 If the mass of commodities remains constant, the quantity of money in circulation surges up or down according to the fluctuations in the prices of the commodities. It rises and falls because the sum of the prices increases or diminishes as a result of the change of price. For this it is by no means necessary that the prices of all commodities should rise or fall simultaneously. A rise or a fall in the prices of a number of leading articles is sufficient in the one case to increase, in the other to diminish, the sum of the prices of all commodities, and therefore to put more or less money in circulation. Whether the change in the price reflects an actual change in the value of the commodities, or merely fluctuations in their market prices, the effect on the quantity of the medium of circulation remains the same.

↑ If the mass of commodities is given, then the mass of means of circulation changes with the changes in their prices. It does not matter here whether these price changes are due to real value changes (either of money or the commodities) or are only (temporary) fluctuations—presumably those “gravitation” movements without which a market economy cannot function.

↓ Next Marx varies the turnover frequency of the money:

129:2/o Let us assume that there occur a number of unconnected and simultaneous sales, or partial metamorphoses, in different localities, sales of, say, 1 quarter of wheat, 20 yards of linen, 1 Bible and 4 gallons of brandy. If the price of each article

zu realisierende Preissumme der Waren bestimmt. Setzen wir nun ferner den Preis jeder Warenart als gegeben voraus, so hängt die Preissumme der Waren offenbar von der in Zirkulation befindlichen Warenmasse ab.

Es gehört wenig Kopfbrechens dazu, um zu begreifen, daß, wenn 1 Quarter Weizen 2 Pfd.St., 100 Quarter 200 Pfd.St., 200 Quarter 400 Pfd.St. usw. kosten, mit der Masse des Weizens daher die Geldmasse wachsen muß, die beim Verkauf den Platz mit ihm wechselt.

132:2 Die Warenmasse als gegeben vorausgesetzt, flutet die Masse des zirkulierenden Geldes auf und ab mit den Preisschwankungen der Waren. Sie steigt und fällt, weil die Preissumme der Waren infolge ihres Preiswechsels zu oder abnimmt. Dazu ist keineswegs nötig, daß die Preise aller Waren gleichzeitig steigen oder fallen. Die Preissteigerung einer gewissen Anzahl leitender Artikel in dem einen oder ihre Preissenkung in dem andren Fall reicht hin, um die zu realisierende Preissumme aller zirkulierenden Waren zu erhöh'n oder zu senken, also auch mehr oder weniger Geld in Zirkulation zu setzen. Ob der Preiswechsel der Waren wirkliche Wertwechsel widerspiegelt oder bloße Schwankungen der Marktpreise, die Wirkung auf die Masse der Zirkulationsmittel bleibt dieselbe.

133:1a Es sei gegeben eine Anzahl zusammenhangsloser, gleichzeitiger und daher räumlich nebeneinander laufender Verkäufe oder Teilmetamorphosen, z.B. von 1 Quarter Weizen, 20 Ellen Leinwand, 1 Bibel, 4 Gallons Kornbranntwein. Wenn der Preis

is £2, and the sum of the prices to be realized is consequently £8, it follows that £8 in money must enter into circulation. If, on the other hand, these same articles are links in the following chain of metamorphoses: 1 quarter of wheat—£2—20 yards of linen—£2—1 Bible—£2—4 gallons of brandy—£2, a chain which is already well known to us, in that case the £2 causes the different commodities to circulate after realizing their prices successively, and therefore realizing the sum of those prices, which is £8, the £2 finally comes to rest in the hands of the distiller. The £2 has turned over four times. It has performed four acts of circulation. This repeated change of place of the same pieces of money corresponds to the double change of form undergone by the commodities, it corresponds to their movement through two diametrically opposed stages of circulation, and the intertwining of the metamorphoses of different commodities.⁷⁶ These antithetical and mutually complementary phases, through which the process passes, cannot take place alongside each other. They must follow in temporal succession. It is segments of time therefore which form the measure of the duration of the process, in other words, the velocity of the circulation of money is measured by the number of times the same piece of money turns over within a given period. Suppose the process of circulation of the four articles takes a day. The sum of prices to be realized is £8, the number of times the £2 turns over during the day is four, and the quantity of money in circulation is £2. Hence, for a given interval of time during the process of circulation, we have the following equation: the quantity of money functioning as the circulating medium = the sum of the prices of the commodities divided by the number of times coins of the same denomination turn over.

⁷⁶ 'It is products which set it' (money) 'in motion and make it circulate ... The velocity of its' (money's) 'motion supplements its quantity. When necessary, it does nothing but slide from

jedes Artikels 2 Pfd.St., die zu realisierende Preissumme daher 8 Pfd.St., so muß eine Geldmasse von 8 Pfd.St. in die Zirkulation eingehn. Bilden dieselben Waren dagegen Glieder der uns bekannten Metamorphosenreihe: 1 Quarter Weizen—2 Pfd.St.—20 Ellen Leinwand—2 Pfd.St.—1 Bibel—2 Pfd.St.—4 Gallons Kornbranntwein—2 Pfd.St., so machen 2 Pfd.St. die verschiedenen Waren der Reihe nach zirkulieren, indem sie deren Preise der Reihe nach, also auch die Preissumme von 8 Pfd.St., realisieren, um schließlich in der Hand des Destillateurs auszuruhen. Sie vollbringen vier Umläufe. Dieser wiederholte Stellenwechsel derselben Geldstücke stellt den doppelten Formwechsel der Ware dar, ihre Bewegung durch zwei entgegengesetzte Zirkulationsstadien und die Verschlingung der Metamorphosen verschiedener Waren.⁷⁶ Die gegensätzlichen und einander ergänzenden Phasen, wodurch dieser Prozeß verläuft, können nicht räumlich nebeneinander fallen, sondern nur zeitlich aufeinander folgen. Zeitabschnitte bilden daher das Maß seiner Dauer, oder die Anzahl der Umläufe derselben Geldstücke in gegebner Zeit mißt die Geschwindigkeit des Geldumlaufs. Der Zirkulationsprozeß jener vier Waren dauere z.B. einen Tag. So beträgt die zu realisierende Preissumme: 8 Pfd.St., die Anzahl der Umläufe derselben Geldstücke während des Tags: 4 und die Masse des zirkulierenden Geldes: 2 Pfd.St., oder für einen gegebenen Zeitabschnitt des Zirkulationsprozesses:

$$\frac{\text{Preissumme der Waren}}{\text{Umlaufanzahl gleichnamiger Geldstücke}} = \text{Masse des als Zirkulationsmittel funktionierenden Geldes.}$$

⁷⁶ „Die Produkte sind es, die es“ (das Geld) „in Bewegung setzen und es zirkulieren machen... Durch die Geschwindigkeit seiner“ (d.h. des Geldes) „Bewegung wird seine Quantität ergänzt.

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hand to hand, without stopping for a moment' (Le Trosne, op. cit., pp. 915-16).

Wenn notwendig, gleitet es nur von einer Hand in die andre, ohne sich einen Augenblick aufzuhalten.“ Le Trosne [LT46, p. 915, 916]

Marx contrasts four isolated sales or purchases with the repeated change of place of the same coin. In the second case one needs less money but more time.

130:1 This law holds generally. The process of circulation in a given country is made up, on the one hand, of numerous isolated and simultaneous partial metamorphoses, sales (and purchases) running parallel to each other in which each coin changes its position only once, or performs only one act of circulation, on the other hand, it is made up of many distinct series of metamorphoses, partly running parallel, partly coalescing with each other, and in each of these series each coin turns over a number of times. How often each coin turns over varies according to the circumstances. Given the total number of times all the circulating coins of one denomination turn over, we can arrive at the average number of times a single coin turns over, or, in other words, the average velocity of circulation of money.

133:1b/o Dies Gesetz gilt allgemein. Der Zirkulationsprozeß eines Landes in einem gegebenen Zeitabschnitt umfaßt zwar einerseits viele zersplitterte, gleichzeitige und räumlich nebeneinander fallende Verkäufe (resp. Käufe) oder Teilmetamorphosen, worin dieselben Geldstücke nur einmal die Stelle wechseln oder nur einen Umlauf vollziehen, andererseits viele teils nebeneinander herlaufende, teils sich ineinander verschlingende mehr oder minder gliederreiche Metamorphosenreihen, worin dieselben Geldstücke mehr oder minder zahlreiche Umläufe zurücklegen. Die Gesamtzahl der Umläufe aller in Zirkulation befindlichen gleichnamigen Geldstücke ergibt jedoch die Durchschnittszahl der Umläufe des einzelnen Geldstücks oder die Durchschnittsgeschwindigkeit des Geldumlaufs.

↑ If one looks at the overall circulation in the whole country, both of the earlier discussed situations occur: on the one hand, independent transactions at different locations, on the other, linked transactions where the same piece of money moves several times. But if one adds up and takes averages, it is not necessary to distinguish between these two situations. “Coins of one denomination:” to avoid complications, it is assumed that all circulating pieces of money have the same denomination.

$$\frac{\text{Sum of prices of commodities moved on a given day}}{\text{Frequency with which all pieces of money make transactions}} \\ = \text{Mass of money functioning as means of circulation.}$$

⇓ Now Marx describes the real mechanisms whose activity makes it possible for the researcher to aggregate and take the averages:

The quantity of money thrown into the process of circulation at the beginning of each day is of course determined by the sum of the prices of all the commodities circulating simultaneously and side by side. But within that process coins are, so to speak, made responsible for each other. If one increases its velocity of circulation, the other slows down or completely leaves the sphere of circulation. This is because the sphere of circulation can absorb only the amount of gold which, multiplied by the average num-

Die Geldmasse, die bei Beginn z.B. des täglichen Zirkulationsprozesses in ihn hineingeworfen wird, ist natürlich bestimmt durch die Preissumme der gleichzeitig und räumlich nebeneinander zirkulierenden Waren. Aber innerhalb des Prozesses wird ein Geldstück sozusagen für das andre verantwortlich gemacht. Beschleunigt das eine seine Umlaufgeschwindigkeit, so erlahmt die des andren, oder es fliegt ganz aus der Zirkulationssphäre heraus, da diese nur eine Goldmasse absorbieren kann, welche, mul-

ber of times its basic unit turns over, is equal to the sum of prices to be realized. Hence, if the number of acts of circulation performed by the separate pieces increases, the total number of those pieces in circulation diminishes. If the number of acts of circulation diminishes, the total number of pieces increases. Since the quantity of money which can function as means of circulation is fixed for a given average velocity of circulation, one has only to throw a given quantity of £1 notes into circulation in order to extract the same number of sovereigns from it. This trick is well known to all banks.

tipliziert mit der mittlern Umlaufszahl ihres einzelnen Elements, gleich der zu realisierenden Preissumme ist. Wächst daher die Anzahl der Umläufe der Geldstücke, so nimmt ihre zirkulierende Masse ab. Nimmt die Anzahl ihrer Umläufe ab, so wächst ihre Masse. Weil die Masse des Geldes, die als Zirkulationsmittel funktionieren kann, bei gegebener Durchschnittsgeschwindigkeit gegeben ist, hat man daher z.B. nur eine bestimmte Quantität von Ein-Pfund-Noten in die Zirkulation hineinzuworfen, um ebenso viele Sovereigns hinauszuworfen, ein allen Banken wohlbekanntes Kunststück.

Question 578 *What does Marx mean with the phrase: “in circulation, one coin is, so-to-say, made responsible for the other”?*

↑ At the beginning of the day, mass of coins determined by price sum of commodities. But during the process, one piece of money is made responsible for the other, if one accelerates, the other slows down. (1) This is why it is legitimate to speak of an average. (2) But this same process also regulated the number of coins in circulation. Banks took advantage of this: by throwing bank notes into circulation, they pushed gold coins (sovereigns) out.

131:1 Just as the flow of money is in general merely a reflection of the process of circulation of commodities, i.e. their circular path through diametrically opposed metamorphoses, so too the velocity of circulation of money is merely a reflection of the rapidity with which commodities change their forms, the continuous interlocking of the series of metamorphoses, the hurried nature of society's metabolic process, the quick disappearance of commodities from the sphere of circulation, and their equally quick replacement by fresh commodities. In the velocity of circulation, therefore, there appears the fluid unity of the antithetical and complementary phases, i.e. the transformation of the commodities from the form of utility into the form of value and their re-transformation in the reverse direction, or the two processes of sale and purchase. Inversely, when the circulation of money slows down, the two processes become separated, they assert their independence and mutual antagonism; stalling occurs in the form changes and hence in the metabolic

134:1 Wie im Geldumlauf überhaupt nur der Zirkulationsprozeß der Waren, d.h. ihr Kreislauf durch entgegengesetzte Metamorphosen erscheint, so in der Geschwindigkeit des Geldumlaufs die Geschwindigkeit ihres Formwechsels, das kontinuierliche Ineinandergreifen der Metamorphosenreihen, die Hast des Stoffwechsels, das rasche Verschwinden der Waren aus der Zirkulationssphäre und ihr ebenso rascher Ersatz durch neue Waren. In der Geschwindigkeit des Geldumlaufs erscheint also die flüssige Einheit der entgegengesetzten und sich ergänzenden Phasen, Verwandlung der Gebrauchsgestalt in Wertgestalt und Rückverwandlung der Wertgestalt in Gebrauchsgestalt, oder der beiden Prozesse des Verkaufs und Kaufs. Umgekehrt erscheint in der Verlangsamung des Geldumlaufs die Trennung und gegensätzliche Verselbständigung dieser Prozesse, die Stockung des Formwechsels und daher des Stoffwechsels. Woher diese Stockung entspringt, ist natürlich der Zirkulation selbst nicht anzusehn. Sie zeigt nur das Phänomen selbst.

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process. The circulation itself, of course, gives no clue to the origin of this stalling; it merely presents us with the phenomenon.

↑ Here Marx says how the velocity of money is determined: it depends on how smoothly the different metamorphoses follow one another. Marx's formulation clarifies what the word "appears" means: an appearance is a remotely controlled phenomenon. ↓ However there is always the temptation to seek the reason for these phenomena in the sphere of circulation itself:

Popular opinion is naturally inclined to attribute this phenomenon to a quantitative deficiency in the circulating medium, since it sees money appear and disappear less frequently at all points on the periphery of circulation, in proportion as the circulation of money slows down.⁷⁷

Der populären Anschauung, welche mit verlangsamtem Geldumlauf das Geld minder häufig auf allen Punkten der Zirkulationsperipherie erscheinen und verschwinden sieht, liegt es nah, das Phänomen aus mangelnder Quantität der Zirkulationsmittel zu deuten.⁷⁷

Fast turnover speed means: commodities are picked up by buyers quickly and are quickly replaced by other commodities. Slow circulation derives from stoppage or stalling (*Stokkung*); but where this interruption comes from, cannot be seen from circulation itself. The popular view is tempted to derive this interruption from lacking quantity of money (although with lower velocity the money in circulation actually increases). Good footnote describing these illusions:

⁷⁷ 'Money being ... the common measure of buying and selling, everybody who hath anything to sell, and cannot procure chapmen for it, is presently apt to think, that want of money in the kingdom, or country, is the cause why his goods do not go off; and so, want of money is the common cry; which is a great mistake ... What do these people want, who cry out for money? ... The farmer complains ... he thinks that were more money in the country, he would have a price for his goods. Then it seems money is not his want, but a price for his corn and cattel, which he would sell, but cannot ... Why cannot he get a price? ... (1) Either there is too much corn and cattel in the country, so that most who come to market have need of selling, as he hath, and few of buying; or (2) there wants the usual vent abroad by transportation ...; or (3) the consumption fails, as when men, by reason of poverty, do not spend so much in their houses as formerly they did; wherefore it is not the increase of specific money, which would at all advance the farmer's goods, but the removal of any of these three causes, which do truly keep down the market ... The merchant and shopkeeper want money in the same manner, that is, they want a vent for the goods they deal in, by reason that the markets fail ... [A nation] never thrives better, than when riches are tost from hand to hand' (Sir Dudley

⁷⁷ „Weil Geld ... das allgemeine Maß für Kauf und Verkauf darstellt, ist jeder, der etwas zu verkaufen hat, aber keinen Käufer finden kann, sofort geneigt, zu denken daß Mangel an Geld im Kingdom oder im Lande schuld sei, wenn seine Waren keinen Absatz finden; daher allenthalben das Geschrei über den Mangel an Geld, was jedoch ein großer Irrtum ist ... Was brauchen diese Leute, die nach Geld schreien? ... Der Pächter klagt ... er denkt, wenn mehr Geld im Lande wäre, könnte er einen Preis für seine Güter bekommen ... Also fehlt ihm anscheinend nicht Geld, sondern ein Preis für sein Korn und sein Vieh, das er verkaufen möchte, aber nicht kann ... Warum kann er keinen Preis erzielen? ... 1. Entweder es gibt zu viel Korn und Vieh im Land, so daß den meisten, die auf den Markt kommen, ebenso wie ihm das Verkaufen not tut, das Kaufen aber nur wenigen, oder 2. der gewöhnliche Absatz durch Ausfuhr stockt ... oder 3. der Konsum wird geringer, wenn z.B. die Leute infolge Armut nicht mehr soviel für ihren Haushalt ausgeben wie früher. Deshalb ist es nicht die Vermehrung von Geld schlechthin, die sich günstig auf die Güter des Pächters auswirken würde, sondern die Beseitigung einer dieser drei Ursachen, die wirklich den Markt niederhalten ... Kaufmann und Krämer brauchen in gleicher Weise Geld, d.h., weil die Märkte stocken, fehlt ihnen

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North, *Discourses upon Trade*, London, 1691, pp. 11–15 passim).

der Absatz der Güter, mit denen sie handeln ... Eine Nation gedeiht niemals besser, als wenn die Reichtümer schnell von Hand zu Hand gehen.“ Sir Dudley North, [Nor91, pp. 11–15 passim].

Question 579 *What is the difference between: “the seller is lacking money” and: “the seller is lacking a price for his commodities”?*

Presumably Marx was in full agreement with North (he also quotes him approvingly in footnote 81 to paragraph 135:2/o), but he certainly did not agree with Herrenschwand:

^{77 ctd} Herrenschwand’s fanciful notions amount merely to this, that the contradictions which arise from the nature of commodities, and therefore come to the surface in circulation, can be removed by increasing the amount of the medium of circulation.

^{77 ctd} Herrenschwands Schwindeleien kommen alle darauf hinaus, daß die aus der Natur der Ware entspringenden und daher in der Warenzirkulation erscheinenden Widersprüche durch Vermehrung der Zirkulationsmittel beseitigt werden können.

The contradictions are located in the core, they only *appear* in circulation. Increasing the quantity of the means of circulation is therefore an attempt to cure the symptoms, not the disease.

The final remark in this footnote, apparently aimed against 1844 Bank Act, points out that the reverse can however happen: disturbances originating in circulation can indeed have effects on the core:

^{77 ctd} It should be mentioned in passing that it by no means follows, from the fact that the popular ascription of stagnation in the processes of production and circulation to an insufficiency of the circulating medium is a delusion, that an actual shortage of the circulating medium resulting from say, bungling government interference with the ‘regulation of currency’ may not for its part give rise to stagnation.

^{77 ctd} Aus der Volksillusion, welche Stockungen des Produktions- und Zirkulationsprozesses einem Mangel an Zirkulationsmitteln zuschreibt, folgt übrigens keineswegs umgekehrt, daß wirklicher Mangel an Zirkulationsmitteln, z.B. infolge offizieller Pfuschereien mit der „regulation of currency“, nicht seinerseits Stockungen hervorrufen kann.

Now in the main text a summary:

132:1 The total quantity of money functioning during a given period as the circulating medium is determined on the one hand by the sum of the prices of the commodities in circulation, and on the other hand by the rapidity of alternation of the antithetical processes of circulation. The proportion of the sum of the prices which can on average be realized by each single coin depends on this rapidity of alternation. But the sum of the prices of the commodities depends on the quantity, as well as on the price, of each kind of commodity. These three factors, the movement of prices, the quantity of commodities in circulation, and the velocity of circulation of money, can all vary in various directions under different conditions. Hence the sum of the prices to be realized

135:1 Das Gesamtquantum des in jedem Zeitabschnitt als Zirkulationsmittel funktionierenden Geldes ist also bestimmt einerseits durch die Preissumme der zirkulierenden Warenwelt, andererseits durch den langsameren oder rascheren Fluß ihrer gegensätzlichen Zirkulationsprozesse, von dem es abhängt, der wievielte Teil jener Preissumme durch dieselben Geldstücke realisiert werden kann. Die Preissumme der Waren hängt aber ab sowohl von der Masse als den Preisen jeder Warenart. Die drei Faktoren: die Preisbewegung, die zirkulierende Warenmasse und endlich die Umlaufgeschwindigkeit des Geldes, können aber in verschiedner Richtung und verschiedenen Verhältnissen wechseln, die zu realisierende Preissumme, daher die durch

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and consequently the quantity of the circulating medium conditioned by that sum, will vary with the very numerous variations of the three factors in combination. Here we shall outline only the most important variations in the history of commodity prices.

Reformulates the basic equation as

$$\frac{\sum p_i q_i}{v} = m$$

Next, Marx goes through different combinations of variations which were historically relevant:

132:2 While prices remain constant, the quantity of the circulating medium may increase owing to an increase in the number of commodities in circulation, or a decrease in the velocity of circulation of money, or a combination of the two. On the other hand, the quantity of the circulating medium may decrease with a decreasing number of commodities, or with an increasing rapidity of circulation.

132:3 With a general rise in the prices of commodities, the quantity of the circulating medium will remain constant, if the number of commodities in circulation decreases proportionally to the increase in their prices, or if the velocity of monetary circulation increases at the same rate as prices rise, the number of commodities in circulation remaining constant. The quantity of the circulating medium may decrease, owing to a more rapid decrease in the number of commodities, or to a more rapid increase in the velocity of monetary circulation, in comparison with the fall in the prices of commodities.

132:4 With a general fall in the prices of commodities, the quantity of the circulating medium will remain constant, if the number of commodities increases proportionally to their fall in price, or if the velocity of monetary circulation decreases in the same proportion. The quantity of the circulating medium will increase, if the number of commodities increases more quickly, or the rapidity of circulation decreases more quickly, than the prices fall.

sie bedingte Masse der Zirkulationsmittel, also sehr zahlreiche Kombinationen durchmachen. Wir zählen hier nur die in der Geschichte der Warenpreise wichtigsten auf.

135:2/o Bei gleichbleibenden Warenpreisen kann die Masse der Zirkulationsmittel wachsen, weil die Masse der zirkulierenden Waren zunimmt oder die Umlaufgeschwindigkeit des Geldes abnimmt oder beides zusammenwirkt. Die Masse der Zirkulationsmittel kann umgekehrt abnehmen mit abnehmender Warenmasse oder zunehmender Zirkulationsgeschwindigkeit.

136:1 Bei allgemein steigenden Warenpreisen kann die Masse der Zirkulationsmittel gleichbleiben, wenn die Masse der zirkulierenden Waren in demselben Verhältnis abnimmt, worin ihr Preis zunimmt, oder die Umlaufgeschwindigkeit des Geldes ebenso rasch zunimmt als die Preiserhöhung während die zirkulierende Warenmasse konstant bleibt. Die Masse der Zirkulationsmittel kann fallen, weil die Warenmasse rascher ab- oder die Umlaufgeschwindigkeit rascher zunimmt als die Preise.

136:2 Bei allgemein fallenden Warenpreisen kann die Masse der Zirkulationsmittel gleichbleiben, wenn die Warenmasse in demselben Verhältnis wächst, worin ihr Preis fällt, oder die Umlaufgeschwindigkeit des Geldes in demselben Verhältnis abnimmt wie die Preise. Sie kann wachsen, wenn die Warenmasse rascher wächst oder die Zirkulationsgeschwindigkeit rascher abnimmt, als die Warenpreise fallen.

↓ These influences must be compensating each other because one sees much less variability of the amount of money in circulation than one should expect:

132:5/o The variations of the different factors may be mutually compensatory, so that notwithstanding their continued instability, the sum of the prices to be realized and the quantity of money in circulation remains constant; consequently, we find, especially if we take long periods into consideration, that the quantity of money in circulation in each country diverges far less from its average level than we should at first sight have expected, with the exception of the violent perturbations which arise periodically, either from crises in production and commerce, or, more rarely, from changes in the value of money itself.

136:3 Die Variationen der verschiedenen Faktoren können sich wechselseitig kompensieren, so daß ihrer beständigen Unstätigkeit zum Trotz die zu realisierende Gesamtsumme der Warenpreise konstant bleibt, also auch die zirkulierende Geldmasse. Man findet daher, namentlich bei Betrachtung etwas längerer Perioden, ein viel konstanteres Durchschnittsniveau der in jedem Lande zirkulierenden Geldmasse und, mit Ausnahme starker Perturbationen, die periodisch aus den Produktions- und Handelskrisen, seltner aus einem Wechsel im Geldwert selbst entspringen, viel geringere Abweichungen von diesem Durchschnittsniveau, als man nach dem Augenschein erwarten sollte.

[The Quantity Theory of Money]

In the last paragraph in subsection 3.2.b Marx discusses the illusion that prices depend on the quantity of money. A much more detailed discussion of this can be found in *Contribution*, 390:1/o.

↓ Marx first reformulates the actual law, derived in 127:2a, in such a way that the quantity theory of money is just the opposite of this reformulated law:

133:1/o The law that the quantity of the circulating medium is determined by the sum of the prices of the commodities in circulation, and the average velocity of the circulation of money,⁷⁸ may also be stated as follows: given the sum of the values of commodities, and the average rapidity of their metamorphoses, the quantity of money or of the material of money in circulation depends on its own value.

136:4/oo Das Gesetz, daß die Quantität der Zirkulationsmittel bestimmt ist durch die Preissumme der zirkulierenden Waren und die Durchschnittsgeschwindigkeit des Geldumlaufs,⁷⁸ kann auch so ausgedrückt werden, daß bei gegebener Wertsumme der Waren und gegebener Durchschnittsgeschwindigkeit ihrer Metamorphosen, die Quantität des umlaufenden Geldes oder des Geldmaterials von seinem eignen Wert abhängt.

↓ The footnote begins with a long quote from Petty showing that Petty got it right:

⁷⁸ 'There is a certain measure and proportion of money requisite to drive the trade of a nation, more or less than which would prejudice the same. Just as there is a certain proportion of farthings necessary in a small retail trade, to change silver money, and to even such reckonings as cannot be adjusted with the smallest silver pieces ... Now, as the proportion of the number of farthings requisite in commerce is to be taken from the number of people, the frequency

⁷⁸ „Es gibt ein bestimmtes Maß und Verhältnis des Geldes, das erforderlich ist, um den Handel einer Nation in Gang zu halten; ein Mehr oder Weniger würde ihm Abbruch tun. Geredes so wie in einem kleinen Detailgeschäft eine bestimmte Menge von Farthings notwendig ist, um die Silbermünzen zu wechseln und solche Zahlungen zu leisten, die mit den kleinsten Silbermünzen nicht geleistet werden können ... Ebenso wie nun das zahlenmäßige Verhältnis

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of their exchanges: as also, and principally, from the value of the smallest silver pieces of money; so in like manner, the proportion of money (gold and silver specie) requisite in our trade, is to be likewise taken from the frequency of commutations, and from the bigness of the payments' (William Petty, *A Treatise of Taxes and Contributions*, London, 1667, p. 17).

der im Handel notwendigen Farthings von der Zahl der Käufer, der Häufigkeit ihrer Käufe und vor allem auch von dem Wert der kleinsten Silbermünze abhängig ist, so ist in ähnlicher Weise das Verhältnis des für unseren Handel notwendigen Geldes (Gold und Silbermünzen) bestimmt durch die Häufigkeit der Tauschvorgänge und die Höhe der Zahlungen.“ William Petty, [Pet67, p. 17].

↓ Hume, of course, had it wrong. Marx discussed Hume in detail in *Contribution*, therefore he brings here only a quote from one of his defenders:

^{78 ctd} Hume's theory was defended against the attacks of J. Steuart and others by A. Young, in his *Political Arithmetic*, London, 1774, where there is a special chapter on this, entitled 'Prices Depend on Quantity of Money', pp. 112 ff.

^{78 ctd} Die Humesche Theorie ward gegen J. Steuart u.a. verteidigt von A. Young in seiner „Political Arithmetic“, Lond. 1774, wo ein eigenes Kapitel: „Prices depend on quantity of money“, p. 112 sqq.

The rest of the footnote is about A. Smith. Marx takes off from his own remarks in *Contribution*, 398:1/o:

^{78 ctd} I stated in *Zur Kritik* etc., p. 149: 'He' (Adam Smith) 'quietly eliminates the question about the amount of coin in circulation by quite improperly regarding money as a simple commodity.' This is only true in so far as Adam Smith treats of money while developing his own theories. Occasionally, however, for example in criticizing earlier systems of political economy, he takes the correct view: 'The quantity of coin in every country is regulated by the value of the commodities which are to be circulated by it ... The value of the goods annually bought and sold in any country requires a certain quantity of money to circulate and distribute them to their proper consumers, and can give employment to no more. The channel of circulation necessarily draws to itself a sum sufficient to fill it, and never admits any more' (*Wealth of Nations*, Bk. IV, Ch. 1).

^{78 ctd} Ich bemerke „Zur Kritik etc.“, p. 149: „Die Frage über die Quantität der zirkulierenden Münze beseitigt er (A. Smith) stillschweigend, indem er das Geld ganz falsch als bloße Ware behandelt.“ Dies gilt nur, soweit A. Smith ex officio das Geld behandelt. Gelegentlich jedoch, z.B. in der Kritik der früheren Systeme der Pol. Ökon., spricht er das Richtige aus: „Die Menge des gemünzten Geldes wird in jedem Lande durch den Wert der Waren geregelt, deren Umlauf es zu vermitteln hat ... Der Wert der in einem Lande jährlich gekauften und verkauften Güter erfordert eine gewisse Menge Geld, um sie zu zirkulieren und an ihre eigentlichen Verbraucher zu verteilen, kann aber für mehr Geld keine Verwendung schaffen. Der Kanal der Zirkulation zieht notwendigerweise eine Summe an, die genügt, um ihn zu füllen, nimmt aber nie eine größere auf.“ („Wealth of Nations“, [vol. III], I. IV, ch. 1. [p. 87, 89.])

This is not the only contradiction in Smith's work:

^{78 ctd} In similar fashion Smith begins his work in the official manner with an apotheosis of the division of labor. Later on, in the last book, on the sources of the public revenue, he occasionally reproduces the denunciations of the division of labor made by his teacher, A. Ferguson.

^{78 ctd} Ähnlich eröffnet A. Smith sein Werk ex officio mit einer Apotheose der Teilung der Arbeit. Hinterher, im letzten Buch über die Quellen des Staatseinkommens, reproduziert er gelegentlich A. Fergusons, seines Lehrers, Denunziation der Teilung der Arbeit.

↑ Adam Ferguson's denunciation of the division of labor is discussed in the chapter about division of labor, p. .

↓ But let us go back to the main text. Marx brings here only the deepest level, the “root,” of the theoretical error leading to the quantity theory of money:

The illusion that it is, on the contrary, prices which are determined by the quantity of the

Die Illusion, daß umgekehrt die Warenpreise durch die Masse der Zirkulationsmit-

circulating medium, and that the latter for its part depends on the amount of monetary material which happens to be present in a country,⁷⁹ had its roots in the absurd hypothesis adopted by the original representatives of this view that commodities enter into the process of circulation without a price, and money enters without a value, and that, once they have entered circulation, an aliquot part of the medley of commodities is exchanged for an aliquot part of the heap of precious metals.⁸⁰

A much more detailed explanation of the same thoughts can be found in *Contribution*, in the excessively long paragraph 393:1–396:0.

⁷⁹ ‘The prices of things will certainly rise in every nation, as the gold and silver increase amongst the people; and consequently, where the gold and silver decrease in any nation, the prices of all things must fall proportionately to such decrease of money’ (Jacob Vanderlint, *Money Answers All Things* London, 1734, p. 5). A close comparison of this book with Hume’s *Essays* leaves not the slightest doubt in my mind that Hume knew and used Vanderlint’s work, which is certainly an important one. The opinion that prices are determined by the quantity of the circulating medium was also held by Barbon and other much earlier writers. ‘No inconvenience,’ says Vanderlint, ‘can arise by an unrestrained trade, but very great advantage; since, if the cash of the nation be decreased by it, which prohibitions are designed to prevent, those nations that get the cash will certainly find everything advance in price, as the cash increases amongst them. And . . . our manufactures, and everything else, will soon become so moderate as to turn the balance of trade in our favour, and thereby fetch the money back again’ (op. cit., pp. 43, 44).

⁸⁰ That each single kind of commodity, through its price, forms an element in the sum of the prices of all the commodities in circulation, is self-evident. But how mutually incommensurable use-values are to be exchanged, en masse, for the total sum of gold or silver in a country is quite incomprehensible. If we can perform the swindle of converting the world of commodities into one single total commodity, of which each commodity is merely an aliquot part, we arrive

tel und letztere ihrerseits durch die Masse des in einem Lande befindlichen Geldmaterials bestimmt werden,⁷⁹ wurzelt bei ihren ursprünglichen Vertretern in der abgeschmackten Hypothese, daß Waren ohne Preis und Geld ohne Wert in den Zirkulationsprozeß eingehn, wo sich dann ein aliquoter Teil des Warenbreis mit einem aliquoten Teil des Metallbergs austausche.⁸⁰

⁷⁹ „Die Preise der Dinge werden sicherlich in jedem Lande so steigen, wie die Menge an Gold und Silber unter den Leuten anwächst; folglich müssen auch, wenn in einem Lande Gold und Silber sich vermindern, die Preise aller Waren einer solchen Verminderung des Geldes entsprechend fallen.“ Jacob Vanderlint, [Van34, p. 5]. Nähere Vergleichung zwischen Vanderlint und Humes „Essays“ läßt mir nicht den geringsten Zweifel, daß Hume V.’s übrigens bedeutende Schrift kannte und benutzte. Die Ansicht, daß die Masse der Zirkulationsmittel die Preise bestimmt, auch bei Barbon und noch viel älteren Schriftstellern. „Keine Ungelegenheit“, sagt Vanderlint, „kann durch ungehinderten Handel entstehen, sondern nur sehr großer Nutzen, denn wenn die Bargeldmenge der Nation durch ihn verringert wird, was ja die Prohibitionsmaßnahmen verhindern sollen, so werden die Nationen, denen das Bargeld zufließt, sicher feststellen, daß alle Dinge in dem Maße im Preise steigen, wie die Bargeldmenge bei ihnen anwächst. Und . . . unsere Manufakturprodukte und alle anderen Waren werden bald so billig, daß sich die Handelsbilanz wieder zu unseren Gunsten wendet, und infolgedessen das Geld zu uns zurückfließt.“ [Van34, p. 43, 44].

⁸⁰ Daß jede einzelne Warenart durch ihren Preis ein Element der Preissumme aller zirkulierenden Waren bildet, ist selbstverständlich. Wie aber untereinander incommensurable Gebrauchswerte sich en masse mit der in einem Land befindlichen Gold oder Silbermasse austauschen sollen, ist völlig unbegreiflich. Verschwindet man die Warenwelt in eine einzige Gesamtware, wovon jede Ware nur einen aliquoten Teil bildet, so kommt das schöne Rechenexempel her-

3. Money or the Circulation of Commodities

at this beautiful calculation: the total commodity = x cwt of gold; commodity A = an aliquot part of the total commodity = the same aliquot part of x cwt of gold. This is stated in all seriousness by Montesquieu: 'If one compares the amount of gold and silver in the world with the sum of the commodities available, it is certain that each product or commodity, taken in isolation, could be compared with a certain portion of the total amount of money. Let us suppose that there is only one product, or commodity, in the world, or only one that can be purchased, and that it can be divided in the same way as money: a certain part of this commodity would then correspond to a part of the total amount of money; half the total of the one would correspond to half the total of the other, etc. . . . the determination of the prices of things always depends, fundamentally, on the relation between the total amount of things and the total amount of their monetary symbols' (Montesquieu, op. cit., Vol. 3, pp. 12, 13). As to the further development of this theory by Ricardo and his disciples, James Mill, Lord Overstone and others, see Zur Kritik, etc., pp. 140–46, and pp. 150 ff. [English edition, pp. 179–85 and 169–77].

↓ Now some remarks about J. St. Mill:

^{80 ctd} John Stuart Mill, with his usual eclectic logic, understands how to hold at the same time the view of his father, James Mill, and the opposite view. When we compare the text of his compendium *Principles of Political Economy* with the Preface to the first edition, where he announces himself as the Adam Smith of his day, we do not know what we should be most astonished at, the naivete of the man or that of the public which accepted him in good faith as the new Adam Smith for he bears about as much resemblance to Adam Smith as General Williams 'of Kars' does to the Duke of Wellington. The original researches of Mr J. S. Mill in the domain of political economy, which are neither extensive nor profound, will all be found drawn up in neat and disciplined columns in his little pamphlet *Some Unsettled Questions of Political Economy*, which appeared in 1844.

↓ And finally Locke:

^{80 ctd} Locke expressly asserts that there is a connection between the absence of value in gold and silver, and the determination of their value by their quantity. 'Mankind having consented to put an imaginary value upon gold and silver ...

aus: Gesamtware = x Ztr. Gold. Ware A = aliquoter Teil der Gesamtware = derselbe aliquote Teil von x Ztr. Gold. Dies ehrlich heraus bei Montesquieu: „Wenn man die Masse des auf der Welt vorhandenen Goldes und Silbers mit der Summe der vorhandenen Waren vergleicht, so kann man gewiß jedes einzelne Erzeugnis bzw. Ware mit einer bestimmten Menge des Geldes vergleichen. Unterstellen wir einmal, daß es nur ein einziges Erzeugnis bzw. eine einzige Ware auf der Welt gibt oder daß nur eine gekauft wird und daß sie ebenso teilbar ist wie das Geld: ein gewisser Teil dieser Ware wird dann einem Teil der Geldmasse entsprechen; die Hälfte der Gesamtheit der Waren der Hälfte der gesamten Geldmasse usw. . . . die Bestimmung der Warenpreise hängt im Grunde genommen stets vom Verhältnis der Gesamtmenge der Waren zur Gesamtmenge der Geldzeichen ab.“ Montesquieu, [Mon69, t. III, p. 12, 13]. Über die Weiterentwicklung dieser Theorie durch Ricardo, seinen Schüler James Mill, Lord Overstone usw. vgl. „Zur Kritik etc.“ p. 140–146, und p. 150 sqq.

^{80 ctd} Herr J. St. Mill versteht es, mit der ihm geläufigen eklektischen Logik, der Ansicht seines Vaters J. Mill und zugleich der entgegengesetzten zu sein. Vergleicht man den Text seines Kompendiums: „*Princ. of Pol. Econ.*“, mit der Vorrede (erste Ausgabe), worin er sich selbst als Adam Smith der Gegenwart ankündigt, so weiß man nicht, was mehr bewundern, die Naivetät des Mannes oder die des Publikums, das ihn auf Treu und Glauben in den Kauf nahm als Adam Smith, zu dem er sich etwa verhält wie General Williams Kars von Kars zum Herzog von Wellington. Die weder umfangreichen noch gehaltreichen Originalforschungen des Herrn J. St. Mill im Gebiet der Pol. Ök. findet man alle in Reih' und Glied aufmarschiert in seinem 1844 erschienenen Schriftchen: „*Some Unsettled Questions of Political Economy.*“

^{80 ctd} Locke spricht direkt den Zusammenhang zwischen der Wertlosigkeit von Gold und Silber und der Bestimmung ihres Werts durch Quantität aus. „Da die Menschen übereingekommen sind, Gold und Silber einen imaginären Wert zu verleihen“

the intrinsic value, regarded in these metals, is nothing but the quantity' (Some Considerations, etc., 1691, in Works, ed. 1777, Vol. 2, p. 15).

hen . . . ist der innere Wert, den man in diesen Metallen erblickt, nichts als ihre Quantität.“ [Loc77, p. 15].

3.2.c. Coins and Symbols of Value

Fowkes translates the title as: Coin. The Symbol of Value. This suggests that a coin is a symbol of value. However in Marx's

terminology coins are full-weighted gold coins, i.e., they are not symbols of value but they are value themselves. To the very

least it should be "The Coin. The symbol of value."

This subsection deals with yet another form accruing to money, which springs not from a change in the relative form of value, as those discussed in section 3.1, but from the circulation process. Since the price of the commodities must be physically present as means of circulation, it is no longer sufficient that a certain unit of gold is by law designated a dollar; it also must be readily available for circulation, i.e., must be minted. A coin (*Münze*) is here always a gold coin; a coin which is not made of gold is called "token of value" ("Scheidemünze" and "Silber- oder Kupfermarken" in 136:1).

This text is very similar to *Contribution*, see 342:2.

[From Gold to Paper Money]

135:1 From the function of money as means of circulation springs its shape of a coin. An amount of gold, whose weight is referred to by the prices or money-names of the commodities, must confront these commodities, within circulation, as coins or pieces of gold of the same denomination.

138:1/o Aus der Funktion des Geldes als Zirkulationsmittel entspringt seine Münzgestalt. Der in dem Preise oder Geldnamen der Waren vorgestellte Gewichtsteil Gold muß ihnen in der Zirkulation als gleichnamiges Goldstück oder Münze gegenüberreten.

Since gold functions as measure of value, all prices are denominated in gold. For gold to function as means of circulation in addition to measure of value, the quantities of gold specified in the prices must be easily assembled and verified. This is why coins are necessary.

Just as the establishment of a fixed standard of prices is the prerogative of the state, so is the business of coining.

Wie die Feststellung des Maßstabs der Preise, fällt das Geschäft der Münzung dem Staat anheim.

These two tasks are closely related: the establishment of a standard of prices specifies how much gold is represented by a monetary unit, and the minting converts raw gold into coins denominated in these units. Through the act of minting, the state combines the face value of a coin with its metal weight. But we will see as the section proceeds that these are two different things which try to go their own ways.

↓ Under the gold standard, gold was money in many countries, but different countries used different coins since they had different standards of prices (i.e., monetary units). For international transfers, these coins were melted down and converted into gold bullion.

In the different national uniforms worn at home by gold and silver as coins, but taken off again when they circulate on the world market, the separation between the internal

In den verschiedenen Nationaluniformen, die Gold und Silber als Münzen tragen, auf dem Weltmarkt aber wieder ausziehen, erscheint die Scheidung zwischen den innern oder na-

3. Money or the Circulation of Commodities

or national spheres of commodity circulation and its universal sphere, the world market, manifests itself.

↑ Marx sees an essential distinction between the many national spheres of commodity circulation and its international sphere. This distinction “manifests itself” or, as the German says, “appears” (*erscheint*), i.e., is reflected and enforced on the surface, in the distinction between the many different national gold coins and the gold bullion—the two forms in which the money commodity enters circulation. On the other hand, these spheres of commodity circulation are closely interrelated, which is reflected in the easy convertibility between gold coins and gold bullion. ↓ Marx adduces this convertibility as another proof that coins are nothing more and nothing less than quantities of gold in a specific physical shape.

135:2/o From the very outset, therefore, the only difference between coin and bullion lies in their physical shape, and gold can at any time be converted from one form into the other.⁸¹

So far, therefore, it seems that there is very little difference between coins and gold bullion. They are continually converted into each other. The state bears the cost of this conversion because it wants coins and gold bullion to be treated as one and the same.

The footnote shows that this may lead to unnecessarily many conversions from one to the other:

⁸¹ It lies of course entirely beyond my purpose to deal with such details as the seigniorage on minting. Still, since the romanticist sycophant Adam Müller admires the ‘magnificent liberality’ with which ‘the English government coins for nothing’, I will quote the following assessment by Sir Dudley North: ‘Silver and gold, like other commodities, have their ebbs and flowings. Upon the arrival of quantities from Spain . . . it is carried into the Tower, and coined. Not long after there will come a demand for bullion to be exported again. If there is none, but all happens to be in coin, what then? Melt it down again; there’s no loss in it, for the coining costs the owner nothing. Thus the nation has been abused, and made to pay for the twisting of straw for asses to eat. If the merchant’ (North was himself one of the biggest merchants at the time of Charles II) ‘were made to pay the price of the coinage, he would not have sent his silver to the Tower without consideration; and coined money would always keep a value above uncoined silver’ [Nor91, p. 18].

tionalen Sphären der Warenzirkulation und ihrer allgemeinen Weltmarktssphäre.

139:1 Goldmünze und Barrengold unterscheiden sich also von Haus aus nur durch die Figur, und das Gold ist beständig aus einer Form in die andre verwandelbar.⁸¹

⁸¹ Es liegt natürlich ganz jenseits meines Zwecks, Details wie Schlagschatz u. dgl. zu behandeln. Gegenüber dem romantischen Sykophanten Adam Müller jedoch, der „die großartige Liberalität“ bewundert, womit die „englische Regierung unentgeltlich münzt“, folgendes Urteil Sir Dudley Norths: „Silber und Geld haben wie andere Waren ihre Ebbe und Flut. Wenn eine Ladung aus Spanien ankommt, . . . wird sie in den Tower gebracht und ausgemünzt. Nicht lange danach entsteht Nachfrage nach Barren für die Ausfuhr. Wenn nun keine vorhanden sind, sondern zufällig alles gemünzt ist, was dann? Man wird es wieder einschmelzen; dies bedeutet keinen Verlust, da das Münzen den Eigentümer nichts kostet. Aber die Nation hat den Schaden, denn sie zahlt dafür, daß Stroh, mit dem man Esel füttert, vorher geflochten wird. Wenn der Kaufmann“ (North war selbst einer der größten Kaufleute zu Charles II. Zeit) „einen Preis für das Münzen zu zahlen hätte, würde er nicht, ohne zu überlegen, sein Silber in den Tower schicken, und gemünztes Geld würde dann stets einen höheren Wert haben, als ungemünztes Silber.“ [Nor91, p. 18]

↑ The reference to the “romanticist sycophant” Adam Müller is [Mül09, p. 280].

Question 582 Why did the state not charge for it when it converted gold into coins?

3.2. Means of Circulation

↓ Next, an ominous sentence which stresses the identity but also forebodes the separation of the functions of coin and of gold in the form of bullion:

For a coin, the road from the mint is at the same time the path to the melting pot.

Der Weg aus der Münze ist aber zugleich der Gang zum Schmelztiegel.

Question 584 In 222:1, Marx says: “the road from the mint is at the same time the path to the melting pot.” What does he mean by this? 2011fa.

Why? Here is the explanation:

In the course of circulation, coins wear down, some to a greater extent, some to a lesser. The denomination of the gold and its substance, the nominal content and the real content, part company. Coins of the same denomination come to be different in value, because their weights move apart. The weight of gold fixed upon as the standard of prices diverges from the weight which serves as the circulating medium, and the latter thereby ceases to be a real equivalent of the commodities whose prices it realizes. The history of these disturbances constitutes the history of the coinage throughout the Middle Ages and in modern times down to the eighteenth century.

Im Umlauf verschleißten nämlich die Goldmünzen, die eine mehr, die andre weniger. Goldtitel und Goldsubstanz, Nominalgehalt und Realgehalt beginnen ihren Scheidungsprozeß. Gleichnamige Goldmünzen werden von ungleichem Wert, weil verschiedenem Gewicht. Das Gold als Zirkulationsmittel weicht ab vom Gold als Maßstab der Preise und hört damit auch auf, wirkliches Äquivalent der Waren zu sein, deren Preise es realisiert. Die Geschichte dieser Wirren bildet die Münzgeschichte des Mittelalters und der Neuzeit bis ins 18. Jahrhundert.

↓ Here is the best formulation of the contradiction Marx is presently discussing:

The spontaneous tendency of the process of circulation to transform the coin from its metallic existence as gold into the semblance of gold, or to transform the coin into a symbol of its official metallic content, is itself recognized by the most recent laws on the degree of metal loss which demonetizes a gold coin, i.e. renders it incapable of being circulated.

Die naturwüchsige Tendenz des Zirkulationsprozesses, das Goldsein der Münze in Goldschein oder die Münze in ein Symbol ihres offiziellen Metallgehalts zu verwandeln, ist selbst anerkannt durch die modernsten Gesetze über den Grad des Metallverlustes, der ein Goldstück kursunfähig macht oder demonetisiert.

Question 585 Why were gold coins which were underweight still allowed to continue to circulate?

Although coins are merely the money commodity in a different physical shape, the weight loss in circulation (and its legal regulation allowing underweight coin still to be accepted at face value) is the first step towards a separation of the functions of money as standard of prices (i.e., fixing a certain weight of gold and giving it the name 1 dollar or 1 pound sterling) and means of circulation (which can be performed by underweight coins as well).

Question 587 Assume it would have been possible to make gold coins which do not wear out at all in circulation: would that have meant that gold coins would not be replaced by tokens of value?

3. Money or the Circulation of Commodities

136:1 The fact that the circulation of money itself splits the nominal content of coins away from their real content, dividing their metallic existence from their functional existence, this fact latently implies the possibility of replacing metallic money with tokens made of some other material, i.e. symbols which would perform the function of coins.

The acceptance in the circulation process of coins which were slightly underweight showed that it was *possible* to replace gold coins with things that had lesser value. This replacement did not stop at the underweight gold coin but it went further. The next paragraph explains why gold coins were replaced by silver and copper. Things are overdetermined and Marx is describing a self-organizing system.

The technical obstacles to coining extremely minute quantities of gold or silver, and the circumstance that at first the less precious metal is used as a measure of value instead of the more precious, copper instead of silver, silver instead of gold, and that the less precious circulates as money until dethroned by the more precious—these facts provide a historical explanation for the role played by silver and copper tokens as substitutes for gold coins. Silver and copper coins replace gold in those regions of the circulation of commodities where coins pass from hand to hand most rapidly, and are therefore worn out most quickly. This happens where sales and purchases on a very small scale recur unceasingly. In order to prevent these satellites from establishing themselves permanently in the place of gold, the law determines the very minute proportions in which alone they can be accepted as alternative payment. The particular tracks pursued by the different sorts of coin in circulation naturally run into each other. Small change appears alongside gold for the payment of fractional parts of the smallest gold coin; gold constantly enters into retail circulation, although it is just as constantly being thrown out again by being exchanged with small change.⁸²

⁸² 'If silver never exceed what is wanted for the smaller payments, it cannot be collected in sufficient quantities for the larger payments ... the use of gold in the main payments necessar-

140:1 Wenn der Geldumlauf selbst den Realgehalt vom Nominalgehalt der Münze scheidet, ihr Metaldasein von ihrem funktionellen Dasein, so enthält er die Möglichkeit latent, das Metallgeld in seiner Münzfunktion durch Marken aus andrem Material oder Symbole zu ersetzen.

Die technischen Hindernisse der Münzung ganz diminutiver Gewichtsteile des Goldes resp. Silbers und der Umstand, daß niedrigere Metalle ursprünglich statt der edleren, Silber statt des Goldes, Kupfer statt des Silbers, zum Wertmaß dienen und daher als Geld zirkulieren im Augenblick, wo das edlere Metall sie entthront, erklären historisch die Rolle von Silber und Kupfermarken als Substituten der Goldmünze. Sie ersetzen das Gold in den Kreisen der Warenzirkulation, worin die Münze am schnellsten zirkuliert und sich daher am schnellsten abnutzt, d.h., wo Käufe und Verkäufe unaufhörlich im kleinsten Maßstab erneuert werden. Um die Festsetzung dieser Trabanten an der Stelle des Goldes selbst zu verhindern, werden gesetzlich die sehr niedrigen Proportionen bestimmt, worin sie allein an Zahlungs Statt für Gold angenommen werden müssen. Die besondren Kreise, worin die verschiedenen Münzsorten umlaufen, laufen natürlich ineinander. Die Scheidemünze erscheint neben dem Gold zur Zahlung von Bruchteilen der kleinsten Goldmünze; das Gold tritt beständig in die Detailzirkulation ein, wird aber durch Auswechslung mit Scheidemünze ebenso beständig herausgeworfen.⁸²

⁸² „Wenn nie mehr Silbergeld vorhanden ist, als man für die kleineren Zahlungen benötigt, kann es nicht in für größere Zahlungen ausreichenden Mengen angesammelt werden ...

3.2. Means of Circulation

ily implies also its use in the retail trade: those who have gold coins offering them for small purchases, and receiving with the commodity purchased a balance of silver in return; by which means the surplus of silver that would otherwise encumber the retail dealer is drawn off and dispersed into general circulation. But if there is as much silver as will transact the small payments independent of gold, the retail trader must then receive silver for small purchases; and it must of necessity accumulate in his hands' (David Buchanan, *Inquiry into the Taxation and Commercial Policy of Great Britain*, Edinburgh, 1844, pp. 248-9).

Die Verwendung von Gold für große Zahlungen schließt notwendig auch seine Verwendung im Detailhandel ein: Wer Goldmünzen hat, benutzt sie auch bei kleineren Einkäufen und erhält mit der gekauften Ware den Rest in Silber zurück; dadurch wird der Überschuß an Silber, der sonst den Detailhändler belasten würde, diesem entzogen und in die allgemeine Zirkulation zurückgeführt. Wenn aber so viel Silber vorhanden ist, daß die kleinen Zahlungen unabhängig von Gold ausgeführt werden können, so wird der Detailhändler für kleine Käufe Silber erhalten, das sich dann notwendig bei ihm anhäufen wird.“ (David Buchanan, „*Inquiry into the Taxation and Commercial Policy of Great Britain*“, Edinburgh 1844, pp. 248, 249.)

Replacement of gold coins by silver- or copper coins of lesser value is only the first step: the next step is the use of completely worthless things, namely, slips of paper:

137:1 The metallic content of silver and copper tokens is arbitrarily determined by law. In the course of circulation they wear down even more rapidly than gold coins. Their function as coins is therefore in practice entirely independent of their weight, i.e. it is independent of all value. In its form of existence as coin, gold becomes completely divorced from the substance of its value. Relatively valueless objects, therefore, such as paper notes, can serve as coins in place of gold. This purely symbolic character of the currency is still somewhat disguised in the case of metal tokens. In paper money it stands out plainly.

140:2/o Der Metallgehalt der Silber- oder Kupfermarken ist willkürlich durch das Gesetz bestimmt. Im Umlauf verschleifen sie noch rascher als die Goldmünze. Ihre Münzfunktion wird daher faktisch durchaus unabhängig von ihrem Gewicht, d.h. von allem Wert. Das Münzdasein des Goldes scheidet sich völlig von seiner Werts substanz. Relativ wertlose Dinge, Papierzettel, können also an seiner Statt als Münze funktionieren. In den metallischen Geldmarken ist der rein symbolische Charakter noch einigermaßen versteckt. Im Papiergeld tritt er augenscheinlich hervor.

After having arrived at money printed on worthless paper Marx concludes with the aphorism:

One sees: only the first step matters.

Man sieht: Ce n'est que le premier pas qui coûte.

The first step is the continued circulation of slightly underweight coins. This indicated that people did not object to receiving gold coins that have less value than their face value in circulation. Once this is clarified, the silver- or copper coins and paper money follow almost automatically.

Marx concludes this description of the trajectory from gold coins to paper money by a clarifying “disclaimer”: we are not talking about credit money here:

137:2 Here we are concerned only with inconvertible paper money issued by the state and given forced currency. This money emerges directly out of the circulation of metallic money. Credit money on the other hand implies relations which are as yet to-

141:1 Es handelt sich hier nur von Staatspapiergeld mit Zwangskurs. Es wächst unmittelbar aus der metallischen Zirkulation heraus. Kreditgeld unterstellt dagegen Verhältnisse, die uns vom Standpunkt der einfachen Warenzirkulation noch durchaus un-

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tally unknown, from the standpoint of the simple circulation of commodities. But it may be noted in passing that just as true paper money arises out of the function of money as the circulating medium, so does credit-money take root spontaneously in the function of money as the means of payment.⁸³

The anecdotes in footnote 83 suggest that state paper money is in the interest of the state, while credit money is in the interest of the capitalists.

⁸³ The financial mandarin Wan Mao-in took it into his head one day to lay before the Son of Heaven a proposal which had the secret purpose of transforming the assignats of the Chinese Empire into convertible banknotes. The Committee on the assignats, in its report of April 1854, severely rebuked him for this. Whether he also received the traditional thrashing with bamboo-sticks is not stated. The concluding part of the report is as follows. 'The Committee has carefully examined his proposal and finds that it is entirely in the interests of the merchants, and in no respect advantageous to the Crown' (Arbeiten der Kaiserlich Russischen Gesandtschaft zu Peking über China, aus dem Russischen von Dr. K. Abel und F. A. Mecklenburg, Erster Band Berlin, 1858, p. 54). In his evidence before the Committee of the House of Lords on the Bank Acts, a governor of the Bank of England says, with regard to the abrasion of gold coins in the course of their circulation: 'Every year a fresh class of sovereigns' (this is not a political statement, for 'sovereign' is a name for the pound sterling) 'becomes too light. The class which one year passes with full weight, loses enough by wear and tear to draw the scales next year against it' (House of Lords Committee, 1848, n. 429).

bekannt sind. Im Vorbeigehn sei jedoch bemerkt, daß, wie eigentliches Papiergeld aus der Funktion des Geldes als Zirkulationsmittel entspringt, das Kreditgeld in der Funktion des Geldes als Zahlungsmittel seine naturwüchsige Wurzel besitzt.⁸³

⁸³ Der Finanzmandarin Wan-mao-in ließ sich beugehn, dem Sohn des Himmels ein Projekt zu unterbreiten, welches versteckt auf Verwandlung der chinesischen Reichsassignaten in konvertible Banknoten hinzielte. Im Bericht des Assignaten-Komitees vom April 1854 erhält er gehörig den Kopf gewaschen. Ob er auch die obligate Tracht Bambushiebe erhielt, wird nicht gemeldet. „Das Komitee“, lautet es am Schluß des Berichts, „hat sein Projekt aufmerksam erwogen und findet, daß alles in ihm auf den Vorteil der Kaufleute ausgeht und nichts für die Krone vorteilhaft ist.“ („Arbeiten der Kaiserlich Russischen Gesandtschaft zu Peking über China.“ Aus dem Russischen von Dr. K. Abel und F. A. Mecklenburg. Erster Band, Berlin 1858, p. 54.) Über die beständige Entmetallung der Goldmünzen durch ihren Umlauf sagt ein „Governor“ der Bank of England als Zeuge vor dem „House of Lord's Committee“ (über „Bankacts“): „Jedes Jahr wird eine frische Klasse von Souverainen“ (dies nicht politisch, sondern der Sovereign ist Name des Pfd.St.) „zu leicht. Die Klasse, welche das eine Jahr als vollwichtig passiert, verliert durch den Verschleiß hinreichend, um das nächste Jahr die Waagschale gegen sich zu drehn.“ (H. o. Lords' Committee 1848, n. 429.)

[The Quantity of Paper Money]

After clarifying that worthless paper money *can* replace gold in circulation, Marx asks the quantitative question: *how much* gold money can be replaced by paper money, and that happens if there is overissue of paper money?

137:3/o Pieces of paper on which money names are printed, such as £ 1, £ 5, etc., are thrown into the circulation process from outside by the state. In so far as they actually circulate in the place of the same amount of gold, their movement is simply a reflection of the laws of monetary circulation itself.

141:2/o Papierzettel, denen Geldnamen, wie 1 Pfd.St., 5 Pfd.St. usw. aufgedruckt sind, werden vom Staat äußerlich in den Zirkulationsprozeß hineingeworfen. Soweit sie wirklich an der Stelle der gleichnamigen Goldsumme zirkulieren, spiegeln sich in ihrer Bewegung nur die Gesetze des Geldum-

laufs selbst wider.

Marx calls the state issuance of paper money “from the outside” (*äußerlich*) because if the state issues paper notes this does not yet mean that they will be used. Cagan’s analysis of hyperinflation is exactly a case where this condition is not satisfied. The state issued so much money that people did not want to use it in the normal way as means of circulation; instead they tried to get rid of it as quickly as possible. One might say, Gresham’s law had seized not only the worse kinds of money, but all money. Since this is one of the few times in which people actually exhibit preferences as to how much money they want to hold, monetarists use it as evidence supporting their theory. Marx however does not explain the amount and value of paper money circulating by the preferences of the money holders, but by the relation of the paper to gold.

The specific laws obeyed by paper circulation can only spring from its relation to gold, since it is the representative of gold.

Ein spezifisches Gesetz der Papierzirkulation kann nur aus ihrem Repräsentationsverhältnis zum Gold entspringen.

Question 588 In 224:2/o, Marx says: “The specific laws obeyed by paper circulation can only spring from its relation to gold, since it is the representative of gold.” What is Marx’s argument here?

The general principle that paper money must draw its own quantity from the quantity of money which it replaces immediately gives a policy prescription about issuing paper money: the state cannot issue more paper money than the amount of gold that would be circulating. If overissue, then the paper slips represent less gold, this is as if standard of prices were changed.

This law is simply that the issue of paper money must be restricted to that quantity in which the gold (or silver) which it symbolizes would actually have to be in circulation.

Und dies Gesetz ist einfach dies, daß die Ausgabe des Papiergelds auf die Quantität zu beschränken ist, worin das von ihm symbolisch dargestellte Gold (resp. Silber) wirklich zirkulieren müßte.

This policy prescription does not seem operational because the quantity of gold coins in circulation is variable:

Now it is true that the quantity of gold which can be absorbed by the sphere of circulation constantly fluctuates above and below a certain average level.

Nun schwankt zwar das Goldquantum, welches die Zirkulationssphäre absorbieren kann, beständig über oder unter ein gewisses Durchschnittsniveau.

The resolution is that only the minimum amount can be replaced by paper:

But despite this, the mass of the circulating medium in a given country never sinks below a certain minimum, which can be ascertained by experience. The fact that this minimum mass continually undergoes changes in its constituent parts, or that the pieces of gold of which it consists are constantly being replaced by other pieces, does of course not make a difference to its extent or to the continuity with which it remains in the sphere of circulation. It can therefore be replaced by paper symbols.

Jedoch sinkt die Masse des zirkulierenden Mediums in einem gegebenen Land nie unter ein gewisses Minimum, das sich erfahrungsmäßig feststellt. Daß diese Minimalmasse fortwährend ihre Bestandteile wechselt, d.h. aus stets andren Goldstücken besteht, ändert natürlich nichts an ihrem Umfang und ihrem konstanten Umtrieb in der Zirkulationssphäre. Sie kann daher durch Papiersymbole ersetzt werden.

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⇓ What happens if more than the minimum is issued in paper?

If however all the channels of circulation were today filled with paper money to the full extent of their capacity for absorbing money, they might the next day be over-full owing to the fluctuations in the circulation of commodities. There would no longer be any standard. If the paper money exceeds its proper limit, i.e., the amount of gold coins of the same denomination which could have been in circulation, then, quite apart from the danger of becoming generally discredited, it will still represent within the world of commodities only that quantity of gold which is fixed by its immanent laws. No greater quantity is capable of being represented. If the quantity of paper money represents twice the amount of gold available, then in practice £1 will be the money-name not of 1/4 of an ounce of gold, but 1/8 of an ounce. The effect is the same as if an alteration had taken place in the function of gold as the standard of prices. The values previously expressed by the price of £1 would now be expressed by the price of £2.

Werden dagegen heute alle Zirkulationskanäle zum vollen Grad ihrer Geldabsorptionsfähigkeit mit Papiergeld gefüllt, so können sie infolge der Schwankungen der Warenzirkulation morgen übertoll sein. Alles Maß geht verloren. Überschreitet aber das Papier sein Maß, d.h. die Quantität von Goldmünze gleicher Denomination, welche zirkulieren könnte, so stellt es, von der Gefahr allgemeiner Diskreditierung abgesehen, innerhalb der Warenwelt dennoch nur die durch ihre immanenten Gesetze bestimmte, also auch allein repräsentierbare Goldquantität vor. Stellt die Papierzettelmasse z.B. je 2 Unzen Gold statt je 1 Unze dar, so wird faktisch 1 Pfd.St. z.B. zum Geldnamen sage etwa von 1/8 Unze statt von 1/4 Unze. Die Wirkung ist dieselbe, als wäre das Gold in seiner Funktion als Maß der Preise verändert worden. Dieselben Werte, die sich daher vorher im Preise von 1 Pfd.St., drücken sich jetzt im Preise von 2 Pfd.St. aus.

⇑ This has a certain superficial resemblance to the quantity theory of money, but it is still quite different from it. First of all, if there is too much paper money, it might become generally (qualitatively) discredited—runaway inflation, use of a foreign currency as money. The normal process could be called “quantitative discrediting”: paper prices are at a premium.

Finally a clarifying remark that the paper symbols symbolize gold, not value or labor:

138:1 Paper money is a symbol of gold, a symbol of money. Its relation to the values of commodities consists only in this: they find imaginary expression in certain quantities of gold, and the same quantities are symbolically and physically represented by the paper. Only in so far as paper money represents gold, which like all other commodities has value, is it a symbol of value.⁸⁴

142:1 Das Papiergeld ist Goldzeichen oder Geldzeichen. Sein Verhältnis zu den Warenwerten besteht nur darin, daß sie ideell in denselben Goldquantis ausgedrückt sind, welche vom Papier symbolisch sinnlich dargestellt werden. Nur sofern das Papiergeld Goldquanta repräsentiert, die, wie alle andren Warenquanta, auch Wertquanta, ist es Wertzeichen.⁸⁴

The footnote shows that Fullarton, an economist highly regarded by Marx, makes an egregious error because he does not distinguish the function of means of circulation and measure of value:

⁸⁴ The following passage from Fullarton shows how unclear even the best writers on money are about its different functions: “That, as far as concerns our domestic exchanges, all the monetary functions which are usually performed by gold and silver coins, may be performed as ef-

⁸⁴ Note zur 2. Ausgabe. Wie unklar selbst die besten Schriftsteller über Geldwesen die verschiedenen Funktionen des Geldes auffassen, zeigt z.B. folgende Stelle aus Fullarton: „Was unseren inländischen Austausch betrifft, können alle Geldfunktionen, die gewöhnlich von Gold-

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fectually by a circulation of inconvertible notes, having no value but that factitious and conventional value . . . they derive from the law, is a fact which admits, I conceive, of no denial. Value of this description may be made to answer all the purposes of intrinsic value, and supersede even the necessity for a standard, provided only the quantity of issues be kept under due limitation' [Ful45, p. 21]. In other words, because the money commodity is capable of being replaced in circulation by mere symbols of value, it is superfluous as a measure of value and a standard of prices!

oder Silbermünzen erfüllt werden, ebenso wirksam durch eine Zirkulation von nicht einlösbaren Noten erfüllt werden, die keinen anderen Wert haben als diesen künstlichen und auf Übereinkunft beruhenden Wert, den sie durch Gesetz erhalten haben—eine Tatsache, die, denke ich, nicht geleugnet werden kann. Ein Wert dieser Art könnte all den Zwecken eines inneren Wertes dienstbar gemacht werden und sogar die Notwendigkeit eines Wertmaßstabs überflüssig machen, sofern nur die Quantität seiner Ausgaben in den gehörigen Schranken gehalten wird.“ [Ful45, p. 21] Also weil die Geldware durch bloße Wertzeichen in der Zirkulation ersetzt werden kann, ist sie als Maß der Werte und Maßstab der Preise überflüssig!

Question 589 Compare Marx's theory about the quantity of paper money with the *Quantity Theory of Money*.

[Why Can Gold be Replaced by Paper?]

138:2/oo Finally, one may ask why gold is capable of being replaced by valueless symbols of itself.

142:2/o Es fragt sich schließlich, warum das Gold durch bloße wertlose Zeichen seiner selbst ersetzt werden kann?

Question 590 Why does Marx ask the question why gold can be replaced by valueless symbols of itself at the end, not the beginning?

This question comes surprisingly late. The replacement of gold coins by tokens occasioned by their wearing-out was merely the empirical proof *that* such a replacement was possible; this does not yet explain *why* it was possible. One reason why this was possible was already alluded to earlier: because the functions of money as means of circulation and the functions of money as measure of value are quite different and contradictory. But other conditions must be met for this replacement to become possible. Gold coins can be replaced by tokens only insofar their function as means of circulation can be isolated (*verselbständigt*), i.e., for those amounts of money which do nothing other than function as means of circulation, and such money must be made legal tender by law.

As we have already seen, it is capable of being replaced in this way only if its function as coin or circulating medium can be singled out or rendered independent. Now this function of being the circulating medium does not attain an independent position as far as the individual gold coins are concerned, although that independent position does appear in the case of the continued circulation of abraded coins. A piece of money is a mere coin, or means of circulation, only as long as it is actually in circulation.

Es ist aber, wie man gesehen, nur so ersetzbar, soweit es in seiner Funktion als Münze oder Zirkulationsmittel isoliert oder verselbständigt wird. Nun findet die Verselbständigung dieser Funktion zwar nicht für die einzelnen Goldmünzen statt, obgleich sie in dem Fortzirkulieren verschlissener Goldstücke erscheint. Bloße Münze oder Zirkulationsmittel sind die Goldstücke gerade nur, solange sie sich wirklich im Umlauf befinden.

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I.e., for individual coins this function is exactly *not* isolated (*verselbständigt*), but they take on this function only when in circulation, and strip it off when outside of circulation.

The isolation of just this one function as means of circulation is not possible for individual coins, with one exception: the occasional exceptionally worn-off coin which everybody passes on as soon as they get it. But other than that, there are no specific coins which always circulate and never rest. But the example of the worn-off coin shows that people are selective in which coins they keep in their purses and which coins they pass on. This allows us to look at the isolation not of individual coins but of a given quantitative fraction of all coins:

But what is not valid for the individual gold coin is valid for that minimum mass of gold which is capable of being replaced by paper money. That mass constantly dwells in the sphere of circulation, continually functions as a circulating medium, and therefore exists exclusively as the bearer of this function. Its movement therefore represents nothing but the continued alternation of the inverse phases of the metamorphosis $C - M - C$, phases in which the commodity's shape as a value confronts it only to disappear again immediately. The representation of the exchange-value of a commodity as an independent entity is here only a transient aspect of the process. The commodity is immediately replaced again by another commodity. Hence in this process which continually makes money pass from hand to hand, it only needs to lead a symbolic existence. Its functional existence so to speak absorbs its material existence. Since it is a transiently objectified reflection of the prices of commodities, it serves only as symbol of itself, and can therefore be replaced by another symbol.⁸⁵

⁸⁵ From the fact that gold and silver themselves become their own symbols, in so far as they are coins, i.e. exclusively have the function of the medium of circulation, Nicholas Barbon deduces the right of governments 'to raise money', i.e. to give to the quantity of silver called a shilling the name of a greater quantity, such as a crown, and so to pay back shillings to creditors instead of crowns. 'Money does wear and grow lighter by often telling over ... It is the denomination and currency of the money that men regard in bargaining, and not the quantity of silver ... 'Tis the public authority upon the metal that makes it money' (N. Barbon, op. cit., p. 29,

Was aber nicht für die einzelne Goldmünze, gilt für die vom Papiergeld ersetzbare Minimalmasse Gold. Sie haust beständig in der Zirkulationssphäre, funktioniert fortwährend als Zirkulationsmittel und existiert daher ausschließlich als Träger dieser Funktion. Ihre Bewegung stellt also nur das fortwährende Ineinanderumschlagen der entgegengesetzten Prozesse der Warenmetamorphose $W - G - W$ dar, worin der Ware ihre Wertgestalt nur gegenübertritt, um sofort wieder zu verschwinden. Die selbständige Darstellung des Tauschwerts der Ware ist hier nur flüchtiges Moment. Sofort wird sie wieder durch andre Ware ersetzt. Daher genügt auch die bloß symbolische Existenz des Geldes in einem Prozeß, der es beständig aus einer Hand in die andre entfernt. Sein funktionelles Dasein absorbiert sozusagen sein materielles. Verschwindend objektiverter Reflex der Warenpreise, funktioniert es nur noch als Zeichen seiner selbst und kann daher auch durch Zeichen ersetzt werden.⁸⁵

⁸⁵ Daraus, daß Gold und Silber als Münze oder in der ausschließlichen Funktion als Zirkulationsmittel zu Zeichen ihrer selbst werden, leitet Nicholas Barbon das Recht der Regierungen her, „to raise money“, d.h., z.B. einem Quantum Silber, das Groschen hieß, den Namen eines größeren Silberquantums, wie Taler, zu geben und so den Gläubigern Groschen statt Taler zurückzuzahlen. „Geld verbraucht sich und wird leichter durch vielfaches Auszählen ... Es ist die Benennung und der Kurs des Geldes, was die Leute im Handel beachten, und nicht die Menge des Silbers ... Es ist die Staatsautorität, die das Metall zum Gelde macht.“ N. Barbon, [Bar96, p.

30, 25).

29, 30, 25].

At the end, Marx gives a second condition under which this replacement is possible:

One thing is necessary, however: the symbol of money must have its own objective social validity. The paper acquires this by its forced currency. The state's compulsion can only be of any effect within that internal sphere of circulation which is circumscribed by the boundaries of a given community, but it is also only within that sphere that money is completely absorbed in its function as medium of circulation, and is therefore able to receive, in the form of paper money, a purely functional mode of existence in which it is externally separated from its metallic substance.

Nur bedarf das Zeichen des Geldes seiner eignen objektiv gesellschaftlichen Gültigkeit, und diese erhält das Papiersymbol durch den Zwangskurs. Nur innerhalb der von den Grenzen eines Gemeinwesens umschriebenen oder innern Zirkulationssphäre gilt dieser Staatszwang, aber auch nur hier geht das Geld völlig auf in seine Funktion als Zirkulationsmittel oder Münze und kann daher im Papiergeld eine von seiner Metallsubstanz äußerlich getrennte und bloß funktionelle Existenzweise erhalten.

Question 591 Enumerate all the conditions under which money be replaced by worthless tokens.

3.3. Money

Marx defines money as that commodity which functions at the same time as measure of value and means of circulation.

140:1 The commodity which functions as the *measure of value* and therefore also, either in its own body or through a representative, as the *means of circulation*, is money.

143:1/o Die Ware, welche als *Wertmaß* und daher auch, leiblich oder durch Stellvertreter, als *Zirkulationsmittel* funktioniert, ist *Geld*.

In the first section of chapter Three, p. 104:1, Marx had written “it is at first only by this function (general measure of value) that gold, the specific equivalent commodity, becomes money.” This formulation “*becomes* money” had indicated that the function of gold as measure of value is the beginning of a social process which turns gold into money.

When entering the second section of chapter Three, which discusses the practical activities of the commodity traders in the market, Marx argues that the function of money as a specific equivalent commodity makes it the obvious choice for a *means of circulation*. Even though this choice is obvious, it is a choice which does not necessarily have to be made, and society may have erected obstacles preventing the use of the commodity that is measure of value also as means of circulation.

Question 592 Bring examples where society prevents the measure of value from becoming means of circulation.

If the same commodity has *both* functions, then it is money. Although this is Marx's definition of money, it is not an arbitrary definition but Marx claims that this is a “real” definition. Definitions carve reality into chunks. *Real* definitions carve reality where reality itself has its joints. Marx is going to show in this section here that the coincidence of the two functions of measure of value and means of circulation entails new powers. In other words, circulation creates a more powerful means than it needs. Although both functions

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(measure of value and means of circulation) are necessary for circulation, their *coincidence* is not—yet circulation also creates this coincidence.

Since at Marx's time gold was the commodity which performed the two functions as measure of value and means of circulation, Marx's text states as a matter of course:

Gold (or silver) is therefore money.

Gold (resp. Silber) ist daher Geld.

If gold is money, this does not mean that gold always functions *as* money; often it only functions as measure of value or means of circulation. Next Marx defines those situations in which gold indeed functions as *money*:

It functions *as money*, on the one hand when it has to appear in person as gold, as the money commodity, i.e., neither merely notional, as when it is measure of value, nor in a capacity in which it can be represented, as when it is means of circulation. On the other hand it functions as money when its function, whether performed in person or by a representative, *fixes* it as the *sole form of value*, or, in other words, as the *only adequate form of existence of exchange-value*, versus all the other commodities as mere *use-values*.

Als Geld funktioniert es, einerseits wo es in seiner goldnen (resp. silbernen) Leiblichkeit erscheinen muß, daher als *Geldware*, also weder bloß ideell, wie im Wertmaß, noch repräsentationsfähig, wie im Zirkulationsmittel; andererseits wo seine Funktion, ob es selbe nun in eigner Person oder durch Stellvertreter vollziehe, es als *alleinige Wertgestalt* oder *allein adäquates Dasein des Tauschwerts* allen andren Waren als bloßen Gebrauchswerten gegenüber *fixiert*.

↑ How can you tell that money functions as money? Marx gives a two-fold criterion:

- (a) if it is not notional (as in measure of value) and not capable of representation (as in means of circulation) then it is money;
- (b) if it distinguishes itself as the sole adequate form of wealth from the mere use-values, then it is money as well.

Marx describes here an instance of emergence: as measure of value and means of circulation money is the representative, the servant, of commodities. It is less than the commodities, because its use-value as a noncorrosive and nontoxic soft metal with excellent electrical conductivity does not matter for the circulation agents, i.e., for them it practically has no use-value. But out of this role as a servant grows its role as king: instead of being the *representative* of real wealth, monetary wealth now seems to be more real than wealth in form of commodities, which are degraded to “mere” use-values. All this is developed in more detail in *Contribution*, p. 358:1/o, where Marx quotes *Boisguillebert*, [Boi43, p. 395] saying:

“Thus the slave of commerce has become its master ... The misery of the peoples is due to the fact that the slave has been turned into a master or rather into a tyrant.”

„Hier ist also der Sklave des Handels sein Herr geworden ... Das Elend der Völker kommt nur daher, daß man einen Herren oder vielmehr einen Tyrannen aus dem gemacht hat, der ein Sklave war.“

Question 594 Assume you live under the gold standard, i.e., gold is money. When does gold function as money as distinct from its functions as measure of value or means of circulation? 2012fa, 2011fa, 2010fa, 2008fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1999SP, 1998WI, 1997sp.

A parallel and more detailed development of the paragraph 140:1 which we just read can be found in *Contribution*, 357:2/o. A very interesting two-page passage in the original text of *Contribution*, [mecw29]508:2–[mecw29]510:2, can be considered an even more detailed version of this.

3.3.a. Hoarding

The German word translated here by “hoarding” is “Schatzbildung” (formation of a treasure), i.e., storing up of money so that at a later time it can be used as the general incarnation of wealth. This does *not* have the connotation of “unwillingness to share” connected with the English word “hoarding” but is a more neutral term. Marx develops the hoard from its opposite, the circulation of commodities:

140:2 The continuous circular movement of the two antithetical metamorphoses of commodities, or the flow alternating between sale and purchase, is reflected in the unceasing turnover of money, in the function it performs as a perpetuum mobile of circulation.

144:1 Der kontinuierliche Kreislauf der zwei entgegengesetzten Warenmetamorphosen oder der flüssige Umschlag von Verkauf und Kauf erscheint im rastlosen Umlauf des Geldes oder seiner Funktion als perpetuum mobile der Zirkulation.

Marx recapitulates here the false appearance of money in circulation introduced earlier in 125:1/o: on level [(P)], money seems as restless as a perpetuum mobile. It seems to have the desire and the ability to move, without apparent goal or driving force. But if one looks at it on level [(F)] one sees that this is an illusion. The flow of the means of circulation is the result of the metamorphoses of the *ordinary commodities*, i.e., commodities are the drivers of circulation, not money. As long as their metamorphoses proceed smoothly, money flows. ↓ However it becomes apparent that the flow of money is induced by the metamorphoses of the commodities when these metamorphoses are interrupted. In this case, the flow of money stops as well:

But as soon as the series of metamorphoses is interrupted, as soon as sales are not supplemented by subsequent purchases, money is immobilized. In this case it is transformed, as Boisguillebert says, from ‘meuble’ into ‘immeuble’, from coin into money.

Es wird immobilisiert, oder verwandelt sich, wie Boisguillebert sagt, aus meuble in immeuble, aus Münze in Geld, sobald die Metamorphosenreihe unterbrochen, der Verkauf nicht durch den nachfolgenden Kauf ergänzt wird.

↑ Once the movement is interrupted, i.e., as soon as the commodity owners no longer immediately supplement their sales with purchases, the means of circulation is transformed from coin into money. Why does this interruption turn the coin into *money*? Marx will discuss this next.

Question 595 *Interruptions in the circulation of money are very mundane practical facts. How can they have enough influence to initiate an entirely new social function of money, namely money as a hoard?* 2013fa, 2012fa, 2011fa.

These interruptions in circulation are due to individual decisions not to buy after having sold. Next Marx gives specific reasons why the commodity owners might want to hold money instead of continuing the circulation process. ↓ Before going into the specifics, the next paragraph makes four preliminary remarks: (1) Historically, hoards are as old as commodity circulation itself, and the forms of hoards develop in tandem with commodity

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circulation. (2) Instead of giving *specific* reasons why people might want to hoard (they come in the subsequent paragraphs), Marx begins with a rough classification of these reasons into “necessity” and “passion.” (3) A sale with the intention to hoard is no longer a phase in the social metabolism of goods, but it becomes and ends in itself. (4) Not only the sales transaction changes its economic form, but so does the money involved in this transaction.

140:3/o Together with the first development of the circulation of commodities there also develops the necessity and the passionate desire to hold fast to the product of the first metamorphosis, to hold fast to the transformed shape of the commodity, or its gold chrysalis.⁸⁶ Commodities are sold not in order to buy commodities, but in order to replace their commodity form with their money form. Instead of being merely a way of mediating the metabolic process, this change of form becomes an end in itself. The disembodied form of the commodity is prevented from functioning as its absolutely alienable form or even as its merely transient money form. The money is petrified into a hoard, and the seller of commodities becomes a hoarder of money.

⁸⁶ ‘Monetary wealth is nothing but . . . wealth in products, transformed into money’ (Mercier de la Rivière, op. cit., p. 573). ‘A value in the form of a product has merely changed its form’ (ibid., p. 486).

144:2 Mit der ersten Entwicklung der Warenzirkulation selbst entwickelt sich die Notwendigkeit und die Leidenschaft, das Produkt der ersten Metamorphose, die verwandelte Gestalt der Ware oder ihre Goldpuppe festzuhalten.⁸⁶ Ware wird verkauft, nicht um Ware zu kaufen, sondern um Warenform durch Geldform zu ersetzen. Aus bloßer Vermittlung des Stoffwechsels wird dieser Formwechsel zum Selbstzweck. Die entäußerte Gestalt der Ware wird verhindert, als ihre absolut veräußerliche Gestalt oder nur verschwindende Geldform zu funktionieren. Das Geld versteinert damit zum Schatz, und der Warenverkäufer wird Schatzbildner.

⁸⁶ „Reichtum an Geld ist nichts weiter als . . . Reichtum an Erzeugnissen, die in Geld verwandelt worden sind.“ Mercier de la Rivière, [MdlR46, p. 573] „Ein Wert in Form von Erzeugnissen hat nur die Form gewechselt.“ [MdlR46, p. 486]

Question 596 *Explain the individual motivation for hoarding money. Do these hoards have a function for the economy as a whole or only for the individual?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2004fa.

↑ In part, the development of money into hoard is the product of economic necessity (there are economic reasons why circulation must sometimes be interrupted), but in part it is due to individual activity, due to people’s fascination with money, an utterly useful and powerful social product. This is one of the few places where individual agency is not only guided by the economic forms with which the individuals are confronted, but where it leads to the development of new forms. Another example later in the book will be the decision how much of the surplus-value to invest. Here, too, individual motivation does not follow blindly the economic imperatives to accumulate, but the capitalists make choices how much to accumulate. In both of these cases, where economic necessities do not fully determine individual activity but where they leave an opening for several different modes of acting, Marx surveys these modes of individual actions and motivations not in general, not in a vacuum, but traces their development through history.

[A Brief History of Hoarding]

↓ (1) At the beginning of the circulation of commodities, only the *surplus* of the products becomes commodities, therefore the possession of gold and silver is an expression of surplus, wealth, luxury.

141:1 In the very beginnings of the circulation of commodities, it is only the excess amounts of use-value which are converted into money. Gold and silver thus become of themselves social expressions for superfluity or wealth.

144:3/o Grade in den Anfängen der Warenzirkulation verwandelt sich nur der Überschuß an Gebrauchswerten in Geld. Gold und Silber werden so von selbst zu gesellschaftlichen Ausdrücken des Überflusses oder des Reichtums.

↑ In these early times, gold and silver could not be used for buying everyday products, but only for products which represent luxury and wealth—therefore gold and silver represented luxury and wealth as well.

↓ In traditional modes of production with a fixed circle of needs, only some of which are met by commodities, people's attitudes about hoards are fixed as well:

This naïve form of hoarding is perpetuated among those peoples whose traditional mode of production, aimed at fulfilling their own requirements, corresponds to a fixed and limited range of needs. This is true of the Asiatics, particularly the Indians.

Diese naive Form der Schatzbildung verewigt sich bei Völkern, wo der traditionellen und auf Selbstbedarf gerichteten Produktionsweise ein fest abgeschlossener Kreis von Bedürfnissen entspricht. So bei den Asiaten, namentlich den Indern.

↑ Only if the needs are fixed and limited can a clear distinction be made between necessities and superfluity or wealth.

↓ Since money reflects excess and not daily necessities, the custom has developed in India to bury money. Marx could not resist quoting Vanderlint here, in order to show how funny the quantity theory of money is:

Vanderlint, who imagines that the prices of commodities in a country are determined by the quantity of gold and silver to be found in it, asks himself why Indian commodities are so cheap. Answer: Because the Hindus bury their money. From 1602 to 1734, he remarks, they buried 150 millions of pounds sterling of silver, which originally came from America to Europe.⁸⁷ From 1856 to 1866, in other words in ten years, England exported to India (and China, but most of the silver exported to China makes its way to back India) £120,000,000 in silver, which had been received in exchange for Australian gold.

Vanderlint, der die Warenpreise durch die Masse des in einem Land befindlichen Goldes und Silbers bestimmt wähnt, fragt sich, warum die indischen Waren so wohlfeil? Antwort: Weil die Inder das Geld vergraben. Von 1602–1734, bemerkt er, vergruben sie 150 Millionen Pfd.St. Silber, die ursprünglich von Amerika nach Europa kamen.⁸⁷ Von 1856–1866, also in 10 Jahren, exportierte England nach Indien und China (das nach China exportierte Metall fließt größtenteils wieder nach Indien) 120 Millionen Pfd.St. in Silber, welches vorher gegen australisches Geld eingewechselt wurde.

Both English translations say

“Australian gold”, but my German

edition says “Australisches Geld.”

⁸⁷ “Tis by this practice they keep all their goods and manufactures at such low rates” [Van34, p. 95, 96]

⁸⁷ „Durch diese Maßnahme halten sie all ihre Güter und Fabrikate so niedrig im Preis.“ [Van34, p. 95, 96]

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↓ (2) With the further development of commodity production, when even daily necessities become commodities, every commodity producer needs a reserve, either for living while he or she produces commodities, or for emergencies. Thus, at all points of commodity circulation, hoards are created:

141:2–142:1 As the production of commodities further develops, every producer of commodities is compelled to make sure of the nexus rerum or the social pledge.⁸⁸ His wants are constantly making themselves felt, and necessitate the continual purchase of other people's commodities, while the production and sale of his own goods require time, and depend upon circumstances. In order then to be able to buy without selling, he must have sold previously without buying.

⁸⁸ "Money ... is a pledge." (John Bellers, *Essays about the Poor, Manufactures, Trade, Plantations, and Immorality*, Lond., 1699, p. 13.)

↓ In a situation where all market participants are motivated to accumulate hoards, the question arises how these hoards are possible. How can everybody sell without buying? A brief digression clarifies this point:

This operation, conducted on a general scale, seems to contradict itself. The precious metals, at the sources of their production, however are directly exchanged for other commodities. Here we have sales (by the owners of commodities) without purchases (by the owners of gold or silver).⁸⁹

145:1–2 Mit mehr entwickelter Warenproduktion muß jeder Warenproduzent sich den nervus rerum, das „gesellschaftliche Faustpfand“ sichern.⁸⁸ Seine Bedürfnisse erneuern sich unaufhörlich und gebieten unaufhörlichen Kauf fremder Ware, während Produktion und Verkauf seiner eignen Ware Zeit kosten und von Zufällen abhängen. Um zu kaufen, ohne zu verkaufen, muß er vorher verkauft haben, ohne zu kaufen.

⁸⁸ „Geld ist ein Pfand.“ (John Bellers, *„Essays about the Poor, Manufactures, Trade, Plantations, and Immorality“*, Lond. 1699, p. 13.)

Diese Operation, auf allgemeiner Stufenleiter ausgeführt, scheint sich selbst zu widersprechen. An ihren Produktionsquellen jedoch tauschen sich die edlen Metalle direkt mit andren Waren aus. Es findet hier Verkauf (auf Seite der Warenbesitzer) ohne Kauf (auf Seite der Gold- und Silberbesitzer) statt.⁸⁹

Exam Question 597 Give an example of a transaction between *P* and *Q* in which *P* sells to *Q* but *Q* does not purchase from *P*. 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa.

Any subsequent sales, by other producers, unfollowed by purchases, merely bring about the distribution of the newly produced precious metals among all the owners of commodities. In this way, all along the line of exchange, hoards of gold and silver of varied extent are accumulated.

⁸⁹ A purchase, in a categorical sense, implies that gold and silver are already the converted form of commodities, or the product of a sale.

↑ The sales without subsequent purchases on the part of the hoarders are balanced by purchases without prior sales on the part of the gold producers (although Marx does not call it “purchase” but a “direct exchange of two commodities.”). Each commodity producer who builds up a hoard withdraws money from circulation and fails to buy after having sold. This

Und spätere Verkäufe ohne nachfolgende Käufe vermitteln bloß die weitere Verteilung der edlen Metalle unter alle Warenbesitzer. So entstehen auf allen Punkten des Verkehrs Gold- und Silberschätze vom verschiedensten Umfang.

⁸⁹ Kauf im kategorischen Sinn unterstellt nämlich Gold oder Silber schon als verwandelte Gestalt der Ware oder als Produkt des Verkaufs.

missing gold is then supplied by the gold producers, who receive those commodities which the hoarders did not buy in exchange for their newly minted gold.

Question 598 *Is the transaction by which the gold producer trades his product for the use-values he needs a purchase or a barter?* 2012fa.

↓ (3) The development of commodity production not only requires the ubiquitous generation of hoards, but also increases the greed for gold:

With the possibility of holding and storing up exchange-value in the shape of a particular commodity, arises also the greed for gold. Along with the extension of circulation, increases the power of money, that absolute and ever ready social form of wealth.

“Gold is a wonderful thing! Whoever possesses it is lord of all he wants. By means of gold one can even get souls into Paradise.” (Columbus in his letter from Jamaica, 1503.)

Mit der Möglichkeit, die Ware als Tauschwert oder den Tauschwert als Ware festzuhalten, erwacht die Goldgier. Mit der Ausdehnung der Warenzirkulation wächst die Macht des Geldes, der stets schlagfertigen, absolut gesellschaftlichen Form des Reichtums.

„Gold ist ein wunderbares Ding! Wer dasselbe besitzt, ist Herr von allem, was er wünscht. Durch Gold kann man sogar Seelen in das Paradies gelangen lassen.“ (Columbus, im Brief aus Jamaica, 1503.)

The power of gold is increased here because it no longer represents luxury but *all* material wealth. The next step is: (4) gold represents more than material wealth:

142:2 Since gold does not disclose what has been transformed into it, everything, commodity or not, is convertible into gold. Everything becomes saleable and buyable. The circulation becomes the great social retort into which everything is thrown, to come out again as a gold-crystal. Nothing is immune to this alchemy; the bones of saints cannot withstand it, let alone certain other, more delicate, sacred things beyond human commerce.⁹⁰

145:3/oo Da dem Geld nicht anzusehn, was in es verwandelt ist, verwandelt sich alles, Ware oder nicht, in Geld. Alles wird verkäuflich und kaufbar. Die Zirkulation wird die große gesellschaftliche Retorte, worin alles hineinfliegt, um als Geldkristall wieder herauszukommen. Dieser Alchimie widerstehn nicht einmal Heiligenknochen und noch viele minder grobe res sacrosanctae, extra commercium hominum.⁹⁰

In the German edition, Marx switched in this passage from “Gold” to “Geld”, i.e. he no longer speaks about gold but about money. The Moore-Aveling

translation still speaks about “gold” here and makes the switch to “money” only in the next passage. Presumably this switch was delayed because Marx uses

“crystal” and “alchemy” as a metaphors here (“alchemy” refers to the attempts of early chemists to synthesize gold).

⁹⁰ Henry III., most Christian king of France, robbed cloisters of their relics, and turned them into money. It is well known what part the despoiling of the Delphic Temple, by the Phocians, played in the history of Greece. Temples with the ancients served as the dwellings of the gods of commodities. They were “sacred banks.” With the Phoenicians, a trading people par excellence, money was the transmuted shape of everything. It was, therefore, quite in order that the virgins, who, at the feast of the Goddess of Love, gave

⁹⁰ Heinrich III., allerchristlichster König von Frankreich, raubt Klöstern usw. ihre Reliquien, um sie zu versilbern. Man weiß, welche Rolle der Raub der delphischen Tempelschätze durch die Phokaer in der griechischen Geschichte spielt. Dem Gott der Waren dienten bei den Alten bekanntlich die Tempel zum Wohnsitz. Sie waren „heilige Banken“. Den Phöniziern, einem Handelsvolke par excellence, galt Geld als die entäußerte Gestalt aller Dinge. Es war daher in der Ordnung, daß die Jungfrauen, die sich an den

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themselves up to strangers, should offer to the goddess the piece of money they received.

Festen der Liebesgöttin den Fremden hingaben, das zum Lohn empfangene Geldstück der Göttin opferten.

Question 600 Starting 228:1, Marx discusses four different motivations for saving money or, as he calls it, “hoarding,” associated with different stages of development of commodity production. Briefly describe these four motivations.

(5) The next step of Marx’s discussion of the social power of money is: Money not only conveys wealth and things other than wealth, but it also transforms its owner:

Just as every qualitative difference between commodities is extinguished in money, so money, on its side, like the radical leveller that it is, does away with all distinctions.⁹¹

⁹¹ “Gold, yellow, glittering, precious gold!
Thus much of this, will make black white, foul, fair;
Wrong, right; base, noble; old, young; coward, valiant.
... What this, you gods? Why, this
Will lug your priests and servants from your sides;
Pluck stout men’s pillows from below their heads;
This yellow slave
Will knit and break religions; bless the accurs’d;
Make the hoar leprosy ador’d; place thieves,
And give them title, knee and approbation;
With senators on the bench, this is it;
That makes the wappen’d widow wed again:
... Come damned earth,
Though common whore of mankind.”

^{91 ctd} (Shakespeare, *Timon of Athens*, Act 4, Scene 3.)

Wie im Geld aller qualitative Unterschied der Waren ausgelöscht ist, löscht es seinerseits als radikaler Leveller alle Unterschiede aus.⁹¹

⁹¹ „Gold! kostbar, flimmernd, rotes Gold!
Soviel hievon, macht schwarz weiß, häßlich schön
Schlecht gut, alt jung, feig tapfer, niedrig edel.
... Ihr Götter! warum dies? warum dies, Götter;
Ha! dies lockt Euch den Priester vom Altar;
Reißt Halbgenes’nen weg das Schlummerkissen;
Ja dieser rote Sklave löst und bindet
Geweihete Bande; segnet den Verfluchten;
Er macht den Aussatz lieblich; ehrt den Dieb,
Und gibt ihm Rang, gebeugtes Knie und Einfluß
Im Rat der Senatoren; dieser führt
Der überjäh’gen Witwe Freier zu;
... Verdammt Metall,
Gemeine Hure du der Menschen.“

^{91 ctd} (Shakespeare, „Timon of Athens“.)

All this social power is vested in an object, which can become the private property of anybody. Therefore money is denounced in antiquity, but revered in modern society:

But money itself is a commodity, an external object, capable of becoming the private property of any individual. Thus social power becomes the private power of private persons. The ancients therefore denounced money as subversive of the economic and moral order of things.⁹²

⁹² ‘Nothing so evil as money ever grew to be current among men.
This lays cities low, this drives men from their homes,
this trains and warps honest souls
till they set themselves to works of shame—
this still teaches folk to practise villainies,

Das Geld ist aber selbst Ware, ein äußerlich Ding, das Privateigentum eines jeden werden kann. Die gesellschaftliche Macht wird so zur Privatmacht der Privatperson. Die antike Gesellschaft denunziert es daher als die Scheidemünze ihrer ökonomischen und sittlichen Ordnung.⁹²

⁹² „Denn kein so schmähtlich Übel, wie des Geldes Wert
Erwuchs den Menschen: dies vermag die Städte selbst
Zu brechen, dies treibt Männer aus von Hof und Herd;
Dies unterweist und verkehrt den edlen Sinn

and to know every godless deed.’
(Sophocles, Antigone.)

Rechtschaff’ner Männer, nachzugeh’n ruchloser
Tat,
Zeigt an die Wege böser List den Sterblichen
Und bildet sie zu jedem gottverhaßten Werk.“
(Sophokles, „Antigone“.)

Question 601 *In Antiquity, money was denounced as subversive of the social and economic order. Explain why money was a problem at that time. Is it still a problem today?*

↓(6) In modern capitalism, monetary hoards are not only an individual peculiarity, but the incarnation of a social principle:

Modern society, which, soon after its birth, pulled Plutus by the hair of his head from the bowels of the earth,⁹³ greets gold as its Holy Grail, as the glittering incarnation of the very principle of its own life.

⁹³ ‘Avarice hopes to drag Pluto himself out of the bowels of the earth’ (Athenaeus, Deipnosophistae).

Die moderne Gesellschaft, die schon in ihren Kinderjahren den Plutus an den Haaren aus den Eingeweiden der Erde herauszieht,⁹³ begrüßt im Goldgral die glänzende Inkarnation ihres eigensten Lebensprinzips.

⁹³ „Der Geiz hofft Pluton selbst aus dem Innern der Erde zu ziehen.“ (Athen[aeus], „Deipnosophistae“.)

This concludes Marx’s discussion of the evolution of the social power of gold. Originally, gold only represented surplus and luxury consumption. With the development of commodity production, it comes to represent any material wealth. By extension, it represents also other things that are not commodities or not wealth. Since all this social power is wielded by a material object which can be owned by anyone, these social powers are reflected on the personality of the money owner. Finally, in modern capitalism, money not only represents personal power but also a social principle.

This survey of attitudes towards money over the centuries teaches us: individuals react to the fact that money not only represents material wealth but also social wealth.

[The Curse of Money]

After this survey of the different ways individuals conceived of and handled money over the millennia, Marx discusses now the structural reasons calling forth this individual reaction to money. This is an important passage introducing what might be called the “spell” or “curse” implied in the money form. Although this spell is discussed here as the driving force behind the miser, we will see later that it is also the driving force behind the capitalist:

143:1/o The commodity, as a use-value, satisfies a particular need and forms a particular element of material wealth. But the value of a commodity measures the strength with which it attracts all other elements of material wealth, i.e., it measures the social wealth of its owner.

147:1 Die Ware als Gebrauchswert befriedigt ein besonderes Bedürfnis und bildet ein besonderes Element des stofflichen Reichtums. Aber der Wert der Ware mißt den Grad ihrer Attraktionskraft auf alle Elemente des stofflichen Reichtums, daher den gesellschaftlichen Reichtum ihres Besitzers.

Fowkes’s “degree of attractiveness for” is an incorrect translation of “*Grad ihrer Attraktionskraft auf*” since it reverses the attractor and the attractee. It also suggests a

utility theory of value. The Moore-Aveling “degree of attraction for” is a little better, though I think it should have been “degree of attraction of.” I tried to

translate it in such a way that it is unambiguous’ that the commodity attracts instead of being attracted by or attractive to social wealth.

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Marx distinguishes here between material wealth and social wealth. Once this social wealth is available in the pure form of money, it overshadows material wealth:

To the commodity owner in primitive societies, and even to the peasant of Western Europe, value is inseparable from the value form, hence an increase of the hoard of gold and silver is an increase in value.

Dem barbarisch einfachen Warenbesitzer, selbst einem westeuropäischen Bauer, ist der Wert unzertrennlich von der Wertform, Vermehrung des Gold- und Silberschatzes daher Wertvermehrung.

But is this indirectness of money, which is one step removed from real wealth, since it first has to be exchanged into use-values, not an obstacle?

It is true that the value of money varies, whether as a result of a variation in its own value, or of a change in the values of commodities. But this on the one hand does not prevent 200 ounces of gold from continuing to contain more value than 100 ounces, nor on the other hand does it prevent the metallic natural form of this object from continuing to be the universal equivalent form of all other commodities, and the directly social incarnation of all human labor.

Allerdings wechselt der Wert des Geldes, sei es infolge seines eignen Wertwechsels, sei es des Wertwechsels der Waren. Dies verhindert aber einerseits nicht, daß 200 Unzen Gold nach wie vor mehr Wert enthalten als 100, 300 mehr als 200 usw., noch andererseits, daß die metallne Naturalform dieses Dings die allgemeine Äquivalentform aller Waren bleibt, die unmittelbar gesellschaftliche Inkarnation aller menschlichen Arbeit.

The indirectness of social wealth even becomes a practical advantage: since money is general equivalent, it allows to save for future use-values without having to commit to any particular use-value.

The drive to hoard is insatiable by its nature. Qualitatively or formally considered, money is unlimited: it is the universal representative of material wealth because it is directly convertible into any other commodity. But at the same time every actual sum of money is quantitatively limited, and therefore has only a limited efficacy as a means of purchase. This contradiction between the quantitative limitation and the qualitative unlimited character of money drives the miser again and again back to his Sisyphean task: accumulation. He is in the same situation as a world conqueror, who discovers a new boundary with each country he annexes.

Der Trieb der Schatzbildung ist von Natur maßlos. Qualitativ oder seiner Form nach ist das Geld schrankenlos, d.h. allgemeiner Repräsentant des stofflichen Reichtums, weil in jede Ware unmittelbar umsetzbar. Aber zugleich ist jede wirkliche Geldsumme quantitativ beschränkt, daher auch nur Kaufmittel von beschränkter Wirkung. Dieser Widerspruch zwischen der quantitativen Schranke und der qualitativen Schrankenlosigkeit des Geldes treibt den Schatzbildner stets zurück zur Sisyphusarbeit der Akkumulation. Es geht ihm wie dem Welteroberer, der mit jedem neuen Land nur eine neue Grenze erobert.

The miser is driven to accumulate more and more money because qualitatively, money is universal, it can be converted into every use-value. But quantitatively it is limited, and in an effort to make its quantity as universal as its quality, the miser hoards more and more money. But however much money he has, it is never enough. Note that this is a non-psychological explanation of greed. The miser is trapped in a contradiction inherent in the social forms which organize production in a market economy. Since the miser has inherited his drive to accumulate from a contradiction, it is not surprising that the means by which he tries to reach his goal are riddled with contradictions as well:

144:1 In order that gold may be held as money, and made to form a hoard, it must be prevented from circulating, or from dissolving into the means of purchasing enjoyment. The miser therefore sacrifices the lusts of his flesh to the fetish of gold. He takes the gospel of abstinence very seriously. On the other hand, he cannot withdraw any more from circulation, in the shape of money, than he has thrown into it, in the shape of commodities. The more he produces, the more he can sell. Work, thrift and greed are therefore his three cardinal virtues, and to sell much and buy little is the sum of his political economy.⁹⁴

⁹⁴ ‘These are the pivots around which all the measures of political economy turn—the maximum possible increase in the number of sellers of each commodity, and the maximum possible decrease in the number of buyers.’ Verri [Ver04, p. 52, 53].

147:2 Um das Gold als Geld festzuhalten und daher als Element der Schatzbildung, muß es verhindert werden zu zirkulieren oder als Kaufmittel sich in Genußmittel aufzulösen. Der Schatzbildner opfert daher dem Goldfetisch seine Fleischeslust. Er macht Ernst mit dem Evangelium der Entsagung. Andererseits kann er der Zirkulation nur in Geld entziehen, was er ihr in Ware gibt. Je mehr er produziert, desto mehr kann er verkaufen. Arbeitsamkeit, Sparsamkeit und Geiz bilden daher seine Kardinaltugenden, viel verkaufen, wenig kaufen, die Summe seiner politischen Ökonomie.⁹⁴

⁹⁴ „Die Zahl der Verkäufer jeder Ware soweit wie möglich zu vermehren, die Zahl der Käufer soweit wie möglich zu vermindern, das sind die Angelpunkte, um die sich alle Maßnahmen der politischen Ökonomie drehen.“ Verri [Ver04, p. 52, 53].

Question 604 *What is the relation between Marx’s theory of a miser and Keynes’s “paradox of thrift”?* 2013fa, 2011fa, 2008fa, 2008SP, 2003fa, 2002fa, 2001fa, 1999SP.

The miser pursues his objectives in a ridiculous and contradictory way:

1. He has to renounce on consumption, i.e., has to make himself poor in order to get rich.
2. As long as he has wealth in the form of money, it is of as much use for him as if the gold were buried in the mountains. But if the miser wants to get wealth in its real form, he has to give away money, i.e., he will lose his hoard.

Question 605 *Describe the inner contradiction of monetary abstract wealth which determine the goals of a miser, and the ridiculous contradiction of the means by which he is trying to reach this goal.* 2013fa, 2012fa, 2009fa, 2008fa, 2003fa, 2002fa, 2001fa, 1999SP, 1998WI, 1997ut, 1997sp.

[Forms and Economic Functions of Hoards]

Gold and silver can be used to make beautiful things which display the wealth of their owner (and which are also more difficult to steal than anonymous gold coins).

144:2 Alongside the direct form of the hoard there runs its aesthetic form, the possession of commodities made out of gold and silver. This grows with the wealth of civil society. ‘Let us be rich, or let us appear rich’ (Diderot). In this way there is formed, on the one hand, a constantly expanding market for gold and silver which is indepen-

147:3/o Neben der unmittelbaren Form des Schatzes läuft seine ästhetische Form, der Besitz von Gold- und Silberwaren. Er wächst mit dem Reichtum der bürgerlichen Gesellschaft. „Soyons riches ou paraissions riches.“ (Diderot.) Es bildet sich so teils ein stets ausgedehnter Markt für Gold und Silber, unabhängig von ihren Geldfunktionen,

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dent of their monetary functions, and on the other hand a latent source of monetary inflow which is used particularly in periods of social storms.

The functions which hoards play for the circulation process are discussed at the very end, since these are by no means the only reason for the existence of these hoards. There is a clear divergence between individual motivation for hoarding, and its economic function.

144:3/o Hoarding serves various functions in an economy where metallic circulation prevails. Its first function arises out of the conditions of the circulation of gold and silver coins. We have seen how, owing to the continual fluctuations in the extent and rapidity of the circulation of commodities and in their prices, the quantity of money in circulation unceasingly ebbs and flows. This quantity must therefore be capable of expansion and contraction. At one time money must be attracted as coin, at another time coin must be repelled as money. In order that the mass of money actually in circulation may always correspond to the saturation level of the sphere of circulation, it is necessary for the quantity of gold and silver available in a country to be greater than the quantity functioning as coin. This condition is fulfilled by money taking the form of hoards. The reserves created by hoarding serve as channels through which money may flow in and out of circulation, so that the circulation itself never overflows its banks.⁹⁶

⁹⁵ ‘There is required for carrying on the trade of the nation a determinate sum of specifick money, which varies, and is sometimes more sometimes less as the circumstances we are in require ... This ebbing and flowing of money supplies and accommodates itself, without any aid of Politicians ... The buckets work alternately; when money is scarce, bullion is coined, when bullion is scarce, money is melted’ Sir D. North, [Nor91, Postscript, p. 3]. John Stuart Mill, who was for a long time an official of the East India Company, confirms that in India silver ornaments still continue to perform directly the functions of a hoard: ‘Silver ornaments are brought out and coined when there is a high rate of interest, and go back again when the rate of interest falls’ (J. S. Mill’s evidence, in Report from the Se-

teils eine latente Zufuhrquelle des Geldes, die namentlich in gesellschaftlichen Sturmperioden fließt.

148:1 Die Schatzbildung erfüllt verschiedene Funktionen in der Ökonomie der metallischen Zirkulation. Die nächste Funktion entspringt aus den Umlaufsbedingungen der Gold- oder Silbermünze. Man hat gesehen, wie mit den beständigen Schwankungen der Warenzirkulation in Umfang, Preisen und Geschwindigkeit die Umlaufsmasse des Geldes rastlos ebbt und flutet. Sie muß also der Kontraktion und Expansion fähig sein. Bald muß Geld als Münze attrahiert, bald Münze als Geld repelliert werden. Damit die wirklich umlaufende Geldmasse dem Sättigungsgrad der Zirkulationssphäre stets entspreche, muß das in einem Lande befindliche Gold- oder Silberquantum größer sein als das in Münzfunktion begriffene. Diese Bedingung wird erfüllt durch die Schatzform des Geldes. Die Schatzreservoirs dienen zugleich als Abfuhr- und Zufuhrkanäle des zirkulierenden Geldes, welches seine Umlaufskanäle daher nie überfüllt.⁹⁵

⁹⁵ „Um Handel zu treiben, bedarf jede Nation einer bestimmten Summe von specifick money, die wechselt und manchmal größer, manchmal kleiner ist, so wie es die Verhältnisse fordern ... Diese Ebben und Fluten des Geldes regeln sich selbst ohne jede Hilfe der Politiker ... Die Eimer arbeiten abwechselnd: wenn das Geld knapp ist, werden Barren gemünzt; sind Barren knapp, werden Münzen eingeschmolzen.“ Sir D. North, [Nor91, Postscript, p. 3]. John Stuart Mill, lange Zeit Beamter der Ostindischen Kompanie, bestätigt, daß in Indien immer noch der Silberschmuck unmittelbar als Schatz funktioniert. Die „silbernen Schmuckstücke werden zum Ausmünzen gebracht, wenn ein hoher Zinssatz besteht; sie wandern zurück, wenn der Zinssatz fällt“. (J. St. Mills Evidence [in] „Repts.

lect Committee on the Bank Acts, 1857, n. 2084, 2101). According to a parliamentary document of 1864 on the gold and silver import and export of India, the import of gold and silver in 1863 exceeded the export by £19,367,764. During the eight years up to 1864, the excess of imports over exports of the precious metals amounted to £109,652,917. During this century far more than £200,000,000 has been coined in India.

on Bankacts“, 1857, n. 2084, 2101.) Nach einem parlamentarischen Dokument von 1864 über Gold- und Silberimport und -export in Indien überstieg 1863 der Import von Gold und Silber den Export um 19 367 764 Pfd.St. In den letzten 8 Jahren vor 1864 betrug der Excess des Imports über den Export der edlen Metalle 109 652 917 Pfd.St. Während dieses Jahrhunderts wurden weit über 200 000 000 Pfd.St. in Indien gemünzt.

Economic function of hoard: absorb the varying mass of gold required as means of circulation. In those countries which had metallic circulation this was an important phenomenon.

3.3.b. Means of Payment

Money can function as money even if it is not withdrawn from circulation. Marx brings two more forms in which money functions as money: means of payment (subsection 3.3.b) and world money (subsection 3.3.c). Money also functions as money when it is advanced as capital, but since capital has not yet been defined, this is not discussed here (compare the end of footnote 98 to paragraph 147:1 below).

Subsection 3.3.b, about means of payment, follows closely the longer explanation in *Contribution*, p. 370:1/o.

[Means of Payment as Practical Actions]

145:1/o In the direct form of commodity circulation hitherto considered, a given value was always present twice: as a commodity at one pole, and money at the opposite pole. The owners of commodities therefore came into contact only as the representatives of simultaneously present equivalents.

148:2/o In der bisher betrachteten unmittelbaren Form der Warenzirkulation war dieselbe Wertgröße stets doppelt vorhanden, Ware auf dem einen Pol, Geld auf dem Gegenpol. Die Warenbesitzer traten daher nur in Kontakt als Repräsentanten wechselseitig vorhandener Äquivalente.

Fowkes again puts an epistemic gloss on it: In the direct form of commodity circulation hitherto considered, we found a given

value always presented to us in a double shape, as a commodity at one pole, and money at the opposite pole.

He also mis-translates “*vorhandner*” as “existing” instead of “present.”

↑ Until now the assumption was made that all purchases are paid in cash. In such cash transactions, the equivalents *C* and *M* are present at the same place and time. This simultaneous presence was tacitly assumed until now. But it is not essential for commodity exchange: But with the development of circulation, conditions arise under which the alienation of the commodity becomes separated in time from the realization of its price. It will be sufficient to indicate the simplest of these conditions. One sort of commodity requires a longer, another a shorter time for its production. The production of different

Mit der Entwicklung der Warenzirkulation entwickeln sich jedoch Verhältnisse, wodurch die Veräußerung der Ware von der Realisierung ihres Preises zeitlich getrennt wird. Es genügt, die einfachsten dieser Verhältnisse hier anzudeuten. Die eine Warenart erheischt längere, die andere kürzere Zeitdauer zu ihrer Produktion. Die Produk-

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commodities depends on different seasons of the year. One commodity may be born in the market place, another must travel to a distant market. One commodity owner may therefore step forth as a seller before the other is ready to buy.

↑ So far, Marx gave some illustrative examples where the commodity is ready to be transferred to the buyer, but the money to pay for it is not yet available—perhaps because the buyer has not yet sold his own commodity, which takes a long time to produce or only comes forward seasonally, or the buyer is far away and the commodity has to be transported, etc. ↓ Next Marx gives two more systematic criteria when this is the case:

When the same transactions are continually repeated between the same persons, the conditions of sale are regulated according to the conditions of production.

↑ First basic situation: if regularly the same transactions occur between the same transactors, then mutual trust develops, people co-operate directly. The synchronization in time between money and commodity turns out to be bothersome, and the terms of commodity circulation are instead governed by the conditions of production (and also, although Marx does not mention this, of the final sale) of the products.

On the other hand, the use of certain kinds of commodity (houses, for instance) is sold for a definite period. Only after the lease has expired has the buyer actually received the use-value of the commodity. He therefore buys it before he pays for it.

↑ The second basic situation does not have to do with technology of production but with the incentive structure. The modern economic term is “time inconsistency.” The seller will not get the money until he has delivered the goods. For instance, the worker will not get his wage until after he has finished working. Marx also brings the example of renting a house. This example does not apply in modern practice, since rent must be paid in advance — because otherwise the renter might skip out before the end of the month. The purchase of labor-power, by contrast, is the classic example in which the purchase price is paid *after* the commodity is fully delivered.

Question 607 *Is it true that at Marx’s time rent was paid at the end of the month? Why the difference to today?*

[New Character Masks and Social Forms of Money]

↓ These circumstances create new forms:

The seller sells an existing commodity, the buyer buys as the mere representative of money, or rather as the representative of future money. The seller becomes a creditor, the buyer becomes a debtor. Since the metamorphosis of commodities, or the development of their form of value, has undergone a

tion verschiedener Waren ist an verschiedene Jahreszeiten geknüpft. Die eine Ware wird auf ihrem Marktplatz geboren, die andre muß zu entferntem Markt reisen. Der eine Warenbesitzer kann daher als Verkäufer auftreten, bevor der andre als Käufer.

Bei steter Wiederkehr derselben Transaktionen unter denselben Personen regeln sich die Verkaufsbedingungen der Waren nach ihren Produktionsbedingungen.

Andrerseits wird die Benutzung gewisser Warenarten, z.B. eines Hauses, für einen bestimmten Zeitraum verkauft. Erst nach Ablauf des Termins hat der Käufer den Gebrauchswert der Ware wirklich erhalten. Er kauft sie daher, bevor er sie zahlt.

Der eine Warenbesitzer verkauft vorhandene Ware, der andre kauft als bloßer Repräsentant von Geld oder als Repräsentant von künftigem Gelde. Der Verkäufer wird Gläubiger, der Käufer Schuldner. Da die Metamorphose der Ware oder die Entwicklung ihrer Wertform sich hier verändert,

change here, money receives a new function as well. It becomes means of payment.⁹⁶

erhält auch das Geld eine andre Funktion. Es wird Zahlungsmittel.⁹⁶

Note that interest or discount payments do not play a role in this derivation of the function of money as means of payment. The means of payment is not a capitalist function but flows from the exigencies of circulation alone.

⁹⁶ [Note by Engels to the fourth German edition:] Luther distinguishes between money as means of purchase and means of payment: 'You have caused me to suffer two-fold damage, because I cannot pay on the one hand and cannot buy on the other' (Martin Luther, *An die Pfarrherrn, wider den Wucher zu predigen*, Wittenberg, 1540 [without pagination]).

⁹⁶ Luther unterscheidet zwischen Geld als Kaufmittel und Zahlungsmittel. „Machest mir einen Zwilling aus dem Schadowacht, das ich hie nicht bezalen und dort nicht kauffen kann.“ (Martin Luther, „An die Pfarrherrn, wider den Wucher zu predigen“, Wittenberg 1540.)

This modification of the relation between commodity owners occurs whether or not commodity circulation is highly developed. It is one of the reasons why commodity producers must build up hoards of money to tide them over these discrepancies in time (see 141:2–142:1, where Marx also remarks that it is contradictory when everyone sells without buying).

Question 608 *Explain how, by the circumstances of commodity circulation, buyers and sellers may develop into debtors and creditors, and give examples.* 2008SP, 2007fa, 2007SP, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP, 1998WI, 1997ut, 1997sp.

146:1 The role of creditor or of debtor results here from the simple circulation of commodities. The change in its form impresses this new stamp on seller and buyer. At first, therefore, these new roles are just as transient as those of seller and buyer, and are played alternately by the same actors. Nevertheless, this opposition now looks less pleasant from the very outset, and it is capable of a more rigid crystallization.⁹⁷

149:1/o Der Charakter von Gläubiger oder Schuldner entspringt hier aus der einfachen Warenzirkulation. Ihre Formveränderung drückt dem Verkäufer und Käufer diese neuen Stempel auf. Zunächst also sind es ebenso verschwindende und wechselweis von denselben Zirkulationsagenten gespielte Rollen wie die von Verkäufer und Käufer. Jedoch sieht der Gegensatz jetzt von Haus aus minder gemütlich aus und ist größerer Kristallisation fähig.⁹⁷

⁹⁷ The following shows the relations existing between debtors and creditors among English traders at the beginning of the eighteenth century: 'Such a spirit of cruelty reigns here in England among the men of trade, that is not to be met with in any other society of men, nor in any other kingdom of the world' (*An Essay on Credit and the Bankrupt Act*, London, 1707, p. 2).

⁹⁷ Über die Schuldner- und Gläubigerverhältnisse unter den englischen Handelsleuten Anfang des 18. Jahrhunderts: „Unter den Handelsleuten herrscht hier in England ein solcher Geist der Grausamkeit, wie er in keiner anderen menschlichen Gesellschaft und in keinem anderen Land der Welt anzutreffen ist.“ („An Essay on Credit and the Bankrupt Act“, Lond. 1707, p. 2.)

Question 609 *Why are the roles of debtor and creditor capable of “more rigid crystallization” than the roles of buyer and seller?*

Although the economic characters of debtor and creditor come here only from the circulation relations and not from any deeper relations of production, footnote 97 showed that they can be quite harsh. In the following historical examples, relations of debtors and creditors arise from deeper relations:

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However, the same characteristics can emerge independently of the circulation of commodities. The class struggle in the ancient world, for instance, took the form mainly of a contest between debtors and creditors, and ended in Rome with the ruin of the plebeian debtors, who were replaced by slaves. In the Middle Ages the contest ended with the ruin of the feudal debtors, who lost their political power together with its economic basis. Here, indeed, the money-form—and the relation between creditor and debtor does have the form of a money-relation—was only the reflection of an antagonism which lay deeper, at the level of the economic conditions of existence.

Another example not mentioned by Marx is the modern credit system. The reason for capitalist credit is deeper than the reason for the function of means of payment discussed here.

Dieselben Charaktere können aber auch von der Warenzirkulation unabhängig auftreten. Der Klassenkampf der antiken Welt z.B. bewegt sich hauptsächlich in der Form eines Kampfes zwischen Gläubiger und Schuldner und endet in Rom mit dem Untergang des plebejischen Schuldners, der durch den Sklaven ersetzt wird. Im Mittelalter endet der Kampf mit dem Untergang des feudalen Schuldners, der seine politische Macht mit ihrer ökonomischen Basis einbüßt. Indes spiegelt die Geldform—and das Verhältnis von Gläubiger und Schuldner besitzt die Form eines Geldverhältnisses—hier nur den Antagonismus tiefer liegender ökonomischer Lebensbedingungen wider.

[Means of Payment from the Form Side]

Next Marx analyses the functions of money in the modified sale:

146:2/o Let us return to the sphere of circulation. The two equivalents, commodities and money, have ceased to appear simultaneously at the two poles of the process of sale. The money functions now, first as a measure of value in the determination of the price of the commodity sold; the price fixed by contract measures the obligation of the buyer, i.e. the sum of money he owes at a particular time. Secondly it serves as a notional means of purchase. Although it exists only in the promise of the buyer to pay, it causes the commodity to change hands. Not until payment falls due does the means of payment actually step into circulation, i.e. leave the hand of the buyer for that of the seller.

In this third function, money functions as money. In order to develop this, Marx compares the means of payment with the hoard:

The circulating medium was transformed into a hoard because the process stopped short after the first phase, because the converted shape of the commodity was withdrawn from circulation. The means of payment does enter circulation, but only af-

150:1 Kehren wir zur Sphäre der Warenzirkulation zurück. Die gleichzeitige Erscheinung der Äquivalente Ware und Geld auf den beiden Polen des Verkaufsprozesses hat aufgehört. Das Geld funktioniert jetzt erstens als Wertmaß in der Preisbestimmung der verkauften Ware. Ihr kontraktlich festgesetzter Preis mißt die Obligation des Käufers, d.h. die Geldsumme, die er an bestimmtem Zeitermin schuldet. Es funktioniert zweitens als ideelles Kaufmittel. Obgleich es nur im Geldversprechen des Käufers existiert, bewirkt es den Händewechsel der Ware. Erst am fälligen Zahlungstermin tritt das Zahlungsmittel wirklich in Zirkulation, d.h. geht aus der Hand des Käufers in die des Verkäufers über.

Das Zirkulationsmittel verwandelte sich in Schatz, weil der Zirkulationsprozeß mit der ersten Phase abbrach oder die verwandelte Gestalt der Ware der Zirkulation entzogen wurde. Das Zahlungsmittel tritt in die Zirkulation hinein, aber nachdem die Ware be-

ter the commodity has already left it. The money no longer mediates the process. It brings it to an end by an independent act, as the absolute form of existence of exchange-value, i.e., as the universal commodity.

Contribution 373:2/o adds: “in short, as money.”

Exam Question 611 *Define the functions of money as measure of value, as means of circulation, and as means of payment.* [2013fa](#).

Question 612 *Explain how in the modified sale, in which the payment of money takes place a certain time after the commodity has changed hands, money first functions as measure of value, then as means of purchase, then as money.* [2012fa](#), [2007SP](#), [2003fa](#), [2001fa](#), [2000fa](#), [1999SP](#), [1998WI](#), [1997ut](#), [1997sp](#).

The seller turned his commodity into money in order to satisfy some need; the hoarder in order to preserve the monetary form of his commodity, and the indebted purchaser in order to be able to pay. If he does not pay, his goods will be sold compulsorily. The value form of the commodity, money, has now become the self-sufficient purpose of the sale, owing to a social necessity springing from the conditions of the process of circulation itself

reits aus ihr ausgetreten ist. Das Geld vermittelt nicht mehr den Prozeß. Es schließt ihn selbständig ab, als absolutes Dasein des Tauscherts oder allgemeine Ware.

Der Verkäufer verwandelte Ware in Geld, um ein Bedürfnis durch das Geld zu befriedigen, der Schatzbildner, um die Ware in Geldform zu präservieren, der schuldige Käufer, um zahlen zu können. Zahlt er nicht, so finden Zwangsverkäufe seiner Habe statt. Die Wertgestalt der Ware, Geld, wird also jetzt zum Selbstzweck des Verkaufs durch eine den Verhältnissen des Zirkulationsprozesses selbst entspringende, gesellschaftliche Notwendigkeit.

Question 613 *Why does money function as money when it functions as hoard or as means of payment? Why does it not function as money when it functions as means of purchase or measure of value?* [2003fa](#), [1999SP](#), [1997ut](#).

147:1 The buyer converts money back into commodities before he has turned commodities into money: in other words, he achieves the second metamorphosis of commodities before the first. The seller's commodity circulates, but it realizes its price only as a title to money in civil law. It is converted into a use-value before it has been converted into money. The completion of its first metamorphosis occurs only subsequently.⁹⁸

⁹⁸ The reason why I take no notice in the text of an opposite form will be seen from the following quotation from my book which appeared in 1859: “Conversely, in the transaction $M - C$, money taking effect as a means of purchase may be alienated, and thus the price of the commodity may be realized, before the use-value of the

150:2 Der Käufer verwandelt Geld zurück in Ware, bevor er Ware in Geld verwandelt hat, oder vollzieht die zweite Warenmetamorphose vor der ersten. Die Ware des Verkäufers zirkuliert, realisiert ihren Preis aber nur in einem privatrechtlichen Titel auf Geld. Sie verwandelt sich in Gebrauchswert, bevor sie sich in Geld verwandelt hat. Die Vollziehung ihrer ersten Metamorphose folgt erst nachträglich.⁹⁸

⁹⁸ Note zur 2. Ausg. Aus folgendem, meiner 1859 erschienenen Schrift entlehnten Zitat wird man sehn, warum ich im Text keine Rücksicht nehme auf eine entgegengesetzte Form: „Umgekehrt kann im Prozeß $G - W$ das Geld als wirkliches Kaufmittel entäußert und der Preis der Ware so realisiert werden, ehe der Gebrauchswert des

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money is realized, or before the commodity is handed over. This happens, for instance, in the well-known form of advance-payment. Or in the form of payment used by the English government to buy opium from Indian ryots . . . In these cases, however, money functions only in the familiar form of means of purchase . . . Of course capital, too, is advanced in the form of money . . . but this aspect does not lie within the scope of simple circulation.” *Zur Kritik, etc., pp. 119, 120.*

Geldes realisiert oder die Ware veräußert wird. Dies findet z.B. statt in der alltäglichen Form der Pränumeration. Oder in der Form, worin die englische Regierung das Opium der Ryots in Indien . . . kauft. So wirkt jedoch das Geld nur in der schon bekannten Form des Kaufmittels . . . Kapital wird natürlich auch in der Form des Geldes avanciert . . . Dieser Gesichtspunkt fällt aber nicht in den Horizont der einfachen Zirkulation.“ („Zur Kritik etc.“, p. 119, 120.)

Question 614 *Are there situations in which money is used in other functions than measure of value, means of circulation, or the independent incarnation of abstract wealth?*

Now the two phases, the modified sale and the sale by the debtor, together (compare *Contribution 374:2/o*). From the point of view of the time when the commodity enters circulation, Marx goes over to the metamorphosis of the commodities of the two transactors. Originally, every commodity owner must sell his commodity first, and then buy another commodity with that money. In the modified sale, the order of these two phases is reversed for the buyer: he converts money back into a commodity before he converts his commodity into money.

Looking at the commodity entering circulation, it must first become exchange-value, money, for its seller, before it can become use-value for its buyer. In the modified sale, also these two phases are in reverse order: it first becomes use-value for its buyer, and the first phase, its becoming exchange-value for its seller, is delayed.

147:2–149:0 Mass of money required for the functions as means of payment, and the contradictions springing from the fact that in part money is not needed at all, in part it is needed as the absolute form of wealth!

147:2/o The obligations falling due within a given time period represent the sum of the prices of the commodities whose sale gave rise to these obligations. The quantity of money necessary to realize this sum depends in the first instance on the turnover speed of the means of payment. This speed is conditioned by two factors: first, the way in which relations between creditors and debtors interlock, as when *A* receives money from *B*, who is in debt to him, and then pays it out to his creditor *C*, and second, the length of time between the days in which the various obligations fall due.

151:1 In jedem bestimmten Zeitabschnitt des Zirkulationsprozesses repräsentieren die fälligen Obligationen die Preissumme der Waren, deren Verkauf sie hervorrief. Die zur Realisierung dieser Preissumme nötige Geldmasse hängt zunächst ab von der Umlaufgeschwindigkeit der Zahlungsmittel. Sie ist bedingt durch zwei Umstände: die Verkettung der Verhältnisse von Gläubiger und Schuldner, so daß *A*, der Geld von seinem Schuldner *B* erhält, es an seinen Gläubiger *C* fortzahlt usw.—und die Zeitlänge zwischen den verschiedenen Zahlungsterminen.

The pronoun “*sie*” in “*sie ist bedingt durch zwei Umstände*” refers to turnover speed, not to the

mass of gold necessary, as both the Fowkes and the Moore-Aveling translations suggest. In

Contribution 376:2/o the wording is unambiguous.

The quantity of money is determined by the price sum and the turnover speed. The turnover speed depends on two factors:

- Concatenation of the debtor-creditor relations so that the same person *A* first receives a payment from *B* and then makes a payment to *C*.
- Length of time between the different due-dates of the obligations.

The discussion that follows focuses on the first of these two factors, the concatenation of payments. First Marx makes a very abstract observation about it:

The chain of successive payments, i.e., retarded first metamorphoses, differs essentially from the interlacing of the metamorphosis-sequences which we considered on a former page. The movement of the (money functioning as) means of circulation is more than a mere expression of the connection between buyers and sellers. This connection itself only originates by and together with the movement of money. Contrariwise, the movement of the means of payment is the expression of a social relation which is already complete and in existence before the money begins to move.

Die prozessierende Kette von Zahlungen oder nachträgliche ersten Metamorphosen unterscheidet sich wesentlich von der früher betrachteten Verschlingung der Metamorphosenreihen. Im Umlauf des Zirkulationsmittels wird der Zusammenhang zwischen Verkäufern und Käufern nicht nur ausgedrückt. Der Zusammenhang selbst entsteht erst in und mit dem Geldumlauf. Dagegen drückt die Bewegung des Zahlungsmittels einen schon vor ihr fertig vorhandenen gesellschaftlichen Zusammenhang aus.

This observation already sets the stage for the discussion of crisis which coming up. The topic of discussion is: how does the structure of retarded first metamorphoses allow to economize the quantity of means of payment? The simultaneous occurrence of sales at the same location is on the one hand a hindrance, but on the other allows the development of new techniques for economizing payments:

148:1 Since sales take place simultaneously and side by side, the extent to which the turnover speed can make up for the quantity of currency available is limited. On the other hand, this simultaneity gives a new impulse towards the economical use of the means of payment. With the concentration of payments in one place, special institutions and methods of liquidation develop spontaneously. For instance, the *virements* (clearing houses) in medieval Lyons. The debts due to *A* from *B*, to *B* from *C*, to *C* from *A*, and so on, have only to be brought face to face in order to cancel each other out, to a certain extent, as positive and negative amounts. There remains only a single debit balance to be settled. The greater the concentration of the payments, the less is this balance in relation to the total amount, hence the less is the mass of the means of payment in circulation.

151:2 Gleichzeitigkeit und Nebeneinander der Verkäufe beschränken den Ersatz der Münzmasse durch Umlaufgeschwindigkeit. Sie bilden umgekehrt einen neuen Hebel in der Ökonomie der Zahlungsmittel. Mit der Konzentration der Zahlungen an demselben Platz entwickeln sich naturwüchsig eigne Anstalten und Methoden ihrer Ausgleichung. So z.B. die *Virements* im mittelalterlichen Lyon. Die Schuldforderungen von *A* an *B*, *B* an *C*, *C* an *A* usw. brauchen bloß konfrontiert zu werden, um sich wechselseitig bis zu einem gewissen Belauf als positive und negative Größen aufzuheben. So bleibt nur eine Schuldbilanz zu saldieren. Je massenhafter die Konzentration der Zahlungen, desto kleiner relativ die Bilanz, also die Masse der zirkulierenden Zahlungsmittel.

↑ The amount of money required as means of payment is economized by the cancellation of obligations. This cancellation can either go in a circle: *A* owes *B*, *B* owes *C*, and *C* owes *A*

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the same amount, payable on the same day: they cancel each other out without any residue. Or you have a chain which is not a circle: *A* owes *B*, *B* owes *C* the same amount: then only a payment from *A* to *C* is necessary.

↓ If the system of mutual cancellations of payments is disturbed on a social scale, then more money is required to settle the obligations than is available: crisis.

148:2/o The function of money as means of payment contains an unmediated contradiction. As long as the payments balance each other, money functions only notionally, as money of account or as measure of value. But if actual payments have to be made, money does not come onto the scene as a means of circulation, as a merely transient and intermediary form of the social metabolism, but as the individual incarnation of social labor, the independent existence of exchange-value, the absolute commodity.

151:3/152 Die Funktion des Geldes als Zahlungsmittel schließt einen unvermittelten Widerspruch ein. Soweit sich die Zahlungen ausgleichen, funktioniert es nur ideell als Rechengeld oder Maß der Werte. Soweit wirkliche Zahlung zu verrichten, tritt es nicht als Zirkulationsmittel auf, als nur verschwindende und vermittelnde Form des Stoffwechsels, sondern als die individuelle Inkarnation der gesellschaftlichen Arbeit, selbständiges Dasein des Tauscherts, absolute Ware.

Question 615 Explain how the function of money as means of payment contains an unmediated contradiction. What does the word “unmediated” mean here? 2010fa, 2009fa, 2008fa.

Now a famous passage about money crises:

This contradiction bursts forth in that aspect of an industrial and commercial crisis which is known as a monetary crisis.⁹⁹ Such a crisis occurs only where the ongoing chain of payments has been fully developed, along with an artificial system for settling them. Whenever there is a general disturbance of the mechanism, no matter what its cause, money suddenly and immediately changes over from its merely notional shape, money of account, into hard cash. Profane commodities can no longer replace it. The use-value of commodities becomes valueless, and their value vanishes in the face of its own value form. The bourgeois, drunk with prosperity and arrogantly certain of himself, has just declared that money is a purely imaginary creation. ‘Commodities alone are money,’ he said. But now the opposite cry resounds over the markets of the world: only money is a commodity. As the hart pants after fresh water, so pants the soul of the bourgeois after money, the only wealth.¹⁰⁰ In a crisis, the antithesis between commodi-

Dieser Widerspruch eklatiert in dem Moment der Produktions- und Handelskrisen, der Geldkrise heißt.⁹⁹ Sie ereignet sich nur, wo die prozessierende Kette der Zahlungen und ein künstliches System ihrer Ausglei- chung völlig entwickelt sind. Mit allgemei- neren Störungen dieses Mechanismus, wo- her sie immer entspringen mögen, schlägt das Geld plötzlich und unvermittelt um aus der nur ideellen Gestalt des Rechengeldes in hartes Geld. Es wird unersetzlich durch pro- fane Waren. Der Gebrauchswert der Ware wird wertlos, und ihr Wert verschwindet vor seiner eignen Wertform. Eben noch erklärte der Bürger in prosperitätstrunknem Auf- klärungsdünkel das Geld für leeren Wahn. Nur die Ware ist Geld. Nur das Geld ist Ware! gellt’s jetzt über den Weltmarkt. Wie der Hirsch schreit nach frischem Wasser, so schreit seine Seele nach Geld, dem einzigen Reichtum.¹⁰⁰ In der Krise wird der Gegen- satz zwischen der Ware und ihrer Wertge- stalt, dem Geld, bis zum absoluten Wider- spruch gesteigert. Die Erscheinungsform

ties and their value form, money, is raised to the level of an absolute contradiction. Hence money's form of appearance is here also a matter of indifference. The monetary famine remains whether payments have to be made in gold or in credit-money, such as bank-notes.¹⁰¹

⁹⁹ [Note by Engels to the third German edition:] The monetary crisis defined in the text as a particular phase of every general industrial and commercial crisis, must be clearly distinguished from the special sort of crisis (also called monetary crisis) which may occur independently, affecting industry and commerce only by its backlash. The pivot of these crises is to be found in money capital, and their immediate sphere of impact is therefore banking, the stock exchange and finance.

¹⁰⁰ 'This sudden transformation of the credit system into a monetary system adds theoretical dismay to the actually existing panic, and the agents of the circulation process are overawed by the impenetrable mystery surrounding their own relations' (Karl Marx, *Zur Kritik*, etc., p. 126) [English edition, p. 146]. 'The poor stand still, because the rich have no money to employ them, though they have the same land and hands to provide victuals and clothes, as ever they had; ... which is the true Riches of a Nation, and not the money' (John Bellers, *Proposals for Raising a Colledge of Industry* London, 1696, pp. 3–4).

¹⁰¹ The following shows how such occasions are exploited by the 'friends of commerce': 'On one occasion (1839) an old, grasping banker (in the city) in his private room raised the lid of the desk he sat over, and displayed to a friend rolls of bank-notes, saying whh intense glee there were £600,000 of them, they were held to make money tight, and would all be let out after three o'clock on the same day' (*The Theory of Exchange. The Bank Charter Act of 1844*, London, 1864, p. 81) [by H. Roy]. *The Observer*, a semi-official government organ, remarked on 24 April 1864: 'Some very curious rumours are current of the means which have been resorted to in order to create a scarcity of bank-notes ... Questionable as it would seem, to suppose that any trick of the kind would be adopted, the report has been so universal that it really deserves mention.'

des Geldes ist hier daher auch gleichgültig. Die Geldhungersnot bleibt dieselbe, ob in Gold oder Kreditgeld, Banknoten etwa, zu zahlen ist.¹⁰¹

⁹⁹ Die Geldkrise, wie im Text bestimmt als besondere Phase jeder allgemeinen Produktions- und Handelskrise, ist wohl zu unterscheiden von der speziellen Sorte der Krise, die man auch Geldkrise nennt, die aber selbständig auftreten kann, so daß sie auf Industrie und Handel nur rückschlagend wirkt. Es sind dies Krisen, deren Bewegungszentrum das Geld-Kapital ist, und daher Bank, Börse, Finanz ihre unmittelbare Sphäre. (Note von M. zur 3. Aufl.)

¹⁰⁰ „Dieses plötzliche Umschlagen aus dem Kreditsystem in das Monetarsystem fügt den theoretischen Schrecken zum praktischen Panik: und die Zirkulationsagenten schauern vor dem undurchdringlichen Geheimnis ihrer eignen Verhältnisse.“ (Karl Marx, l.c. p. 126.) „Die Armen haben keine Arbeit, weil die Reichen kein Geld haben um sie zu beschäftigen, obwohl sie die gleichen Ländereien und die gleichen Arbeitskräfte besitzen wie früher, um Lebensmittel und Kleider herstellen zu lassen, diese aber bilden den wahren Reichtum einer Nation und nicht das Geld.“ (John Bellers, „*Proposals for raising a Colledge of Industry*“, Lond. 1696, p. 3, 4.)

¹⁰¹ Wie solche Momente von den „amis du commerce“ ausgebeutet werden: „Bei einer Gelegenheit“ (1839) „hob ein alter habstüchtiger Bankier“ (der City) „in seinem Privatzimmer den Deckel des Schreibtisches, an dem er saß, und breitete vor einem Freunde Bündel von Banknoten aus; mit innigem Vergnügen sagte er, das seien 600 000 Pfd.St., die zurückgehalten worden wären, um das Geld knapp zu machen, und die alle in den Verkehr gebracht würden nach 3 Uhr desselben Tages.“ ([H. Roy.] „*The Theory of the Exchanges. The Bank Charter Act of 1844*“, Lond. 1864, p. 81.) Das halboffizielle Organ, „*The Observer*“, bemerkt am 24. April 1864: „Einige sehr eigenartige Gerüchte sind im Umlauf über die Mittel, die in der Absicht, eine Knappheit in Banknoten herbeizuführen, angewendet worden sind ... So fragwürdig es auch scheinen mag anzunehmen, daß irgendwelche derar-

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tige Tricks angewendet werden könnten, so war die Nachricht darüber doch so weit verbreitet, daß man sie in der Tat erwähnen muß.“

Geldkrise (i.e., the monetary aspect of general crises, *not* the independent crises of the moneyed capitalists, see the footnote 99).

The periodic swings in the cycle, in one phase only commodity is money, in another only the money counts, indicate that the link of money to gold can be established only in crisis phases.

Question 617 Marx wrote in 233:2/o: “The money is no longer the means that brings about the process. It only brings it to a close, by stepping in as the absolute form of existence of exchange-value, or as the universal commodity”: Describe a situation when this difference becomes practically relevant.

149:1/o If we now consider the total amount of money in circulation during a given period, we find that, for any given turnover rate of the means of circulation and the means of payment, it is equal to the sum of prices to be realized, plus the sum of the payments falling due, minus the payments which balance each other out, and, finally, minus the number of circuits in which the same piece of coin serves alternately as means of circulation and means of payment. The farmer, for example, sells his wheat for £2, and this money serves thus as the means of circulation. On the day when the payment falls due, he uses it to pay for linen which the weaver has delivered. The same £2 now serves as the means of payment. The weaver now buys a Bible for cash. This serves again as the means of circulation, and so on. Therefore, even when prices, speed of monetary circulation and economies in the use of the means of payment are given, the quantity of money in circulation no longer corresponds with the mass of commodities in circulation during a given period, such as a day. Money which represents commodities long since withdrawn from circulation continues to circulate. Commodities circulate, but their equivalent in money does not appear until some future date. Moreover, the debts contracted each day, and the payments falling due on the same day, are entirely incommensurable magnitudes.¹⁰²

¹⁰² ‘The amount of purchases or contracts entered upon during the course of any given day,

153:1 Betrachten wir nun die Gesamtsumme des in einem gegebenen Zeitabschnitt umlaufenden Geldes, so ist sie, bei gegebener Umlaufgeschwindigkeit der Zirkulations- und Zahlungsmittel, gleich der Summe der zu realisierenden Warenpreise plus der Summe der fälligen Zahlungen, minus der sich ausgleichenden Zahlungen, minus endlich der Anzahl Umläufe worin dasselbe Geldstück abwechselnd bald als Zirkulations-, bald als Zahlungsmittel funktioniert. Z.B. der Bauer verkauft sein Getreide für 2 Pfd.St., die so als Zirkulationsmittel dienen. Am Verfalltag zahlt er damit Leinwand, die ihm der Weber geliefert hat. Dieselben 2 Pfd.St. funktionieren jetzt als Zahlungsmittel. Der Weber kauft nun eine Bibel gegen bar—sie funktionieren von neuem als Zirkulationsmittel—usw. Selbst Preise, Geschwindigkeit des Geldumlaufs und Ökonomie der Zahlungen gegeben, decken sich daher nicht länger die während einer Periode, eines Tags z.B. umlaufende Geldmasse und zirkulierende Warenmasse. Es läuft Geld um das der Zirkulation längst entzogene Waren repräsentiert. Es laufen Waren um, deren Geldäquivalent erst in der Zukunft erscheint. Andererseits sind die jeden Tag kontrahierten und die denselben Tag fälligen Zahlungen durchaus incommensurable Größen.¹⁰²

¹⁰² „Der Umfang der Verkäufe oder Verträge, die während eines bestimmten Tages abgeschlos-

will not affect the quantity of money afloat on that particular day, but, in the vast majority of cases, will resolve themselves into multifarious drafts upon the quantity of money which may be afloat at subsequent dates more or less distant ... The bills granted or credits opened, today, need have no resemblance whatever, either in quantity, amount, or duration, to those granted or entered upon tomorrow or next day; nay, many of today's bills, and credits, when due, fall in with a mass of liabilities whose origins traverse a range of antecedent dates altogether indefinite, bills at 12, 6, 3 months or 1 often aggregating together to swell the common liabilities of one particular day ...' (The Currency Theory Reviewed: A Letter to the Scotch People. By a Banker in England, Edinburgh, 1845, pp. 29, 30 passim).

sen werden, beeinflusst nicht die Geldmenge, die an diesem Tage umläuft, aber in der großen Mehrzahl der Fälle wird sie sich auflösen in mannigfaltiges Ziehen von Wechseln auf die Geldmenge, die an späteren, mehr oder weniger ferneren Tagen im Umlauf sein mag ... Die heute gewährten Wechsel oder eröffneten Kredite brauchen weder in der Zahl noch in der Höhe noch in der Laufzeit irgendeine Ähnlichkeit zu haben mit denen, die auf morgen oder übermorgen gewährt oder aufgenommen wurden; vielmehr decken sich viele der heutigen Wechsel und Kredite, wenn fällig, mit einer Menge von Verbindlichkeiten, deren Ursprung sich über eine Reihe früherer, völlig unbestimmter Daten verteilt. Wechsel mit 12, 6, 3 oder 1 Monat Laufzeit treffen oft so zusammen, daß sie die an einem bestimmten Tage fälligen Verbindlichkeiten besonders anwachsen lassen ...' („The Currency Theory Reviewed; a letter to the Scotch people. By a Banker in England“, Edinburgh 1845, p. 29, 30 passim.)

Now the *total* mass of circulating money is discussed, whether it circulates as means of payment *or* as means of purchase. In *Contribution* this case was left out, in which some money first functions as means of payment and then as means of purchase. If the turnover speed and economy of payments is given, the amount of money still depends on the price sum of commodities: but no longer of the commodities circulating the same day.

Question 618 *On what factors depends the mass of money required for*

- a) *means of purchase*
- b) *means of payment*
- c) *means of purchase and means of payment*
- d) *means of purchase and means of payment including payments of taxes, rent, interest, etc.*

150:1 Credit-money springs directly out of the function of money as a means of payment, in that certificates of debts owing for already purchased commodities themselves circulate for the purpose of transferring those debts to others. On the other hand, the function of money as a means of payment undergoes expansion in proportion as the system of credit itself expands. As the means of payment money takes on its own peculiar forms of existence, in which it inhabits the sphere of large-scale commercial transactions. Gold and silver coin, on the other hand, are mostly relegated to the sphere of retail trade.¹⁰³

153:2/o Das Kreditgeld entspringt unmittelbar aus der Funktion des Geldes als Zahlungsmittel, indem Schuldzertifikate für die verkauften Waren selbst wieder zur Übertragung der Schuldforderungen zirkulieren. Andererseits, wie sich das Kreditwesen ausdehnt, so die Funktion des Geldes als Zahlungsmittel. Als solches erhält es eigne Existenzformen, worin es die Sphäre der großen Handelstransaktionen behauptet, während die Gold- oder Silbermünze hauptsächlich in die Sphäre des Kleinhandels zurückgedrängt wird.¹⁰³

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Credit money *springs from* the function of money as means of payment, and on the other hand, the development of the credit system *increases* the function of money as means of payment. Forms of existence of money as means of payment are at Marx's time bills of exchange, cheques, country bank notes, Bank of England notes etc., which develop because they are also forms of giving credit and earning interest. Footnote 23c354s1103akmc shows how much bigger their quantity is than the quantity of gold, silver or copper ("real money"):

¹⁰³ As an example of how little real money enters into true commercial operations, I give below a statement by one of the largest London merchant banks (Morrison, Dillon & Co.) of its yearly receipts and payments. Its transactions during the year 1856, extending in fact to many millions of pounds are here reduced to the scale of one million.

¹⁰³ *ctd*

Receipts	
Bankers' and merchants' bills payable after date	
Cheques on bankers, etc. payable on demand	
Country notes	
Bank of England notes	
Gold	
Silver and copper	
Post Office orders	
Total:	

¹⁰³ *ctd*

Payments	£
Bills payable after date	302,674
Cheques on London bankers	663,672
Bank of England notes	22,743
Gold	9,427
Silver and copper	1,484
Total:	£1,000,000

¹⁰³ *ctd* (Report from the Select Committee on the Bank Acts, July 1858, p. lxxi)

¹⁰³ Als Beispiel, wie wenig reelles Geld in die eigentlichen Handeloperationen eingeht, folgt hier das Schema eines der größten Londoner Handelshäuser (Morrison, Dillon & Co.) über seine jährlichen Geldeinnahmen und Zahlungen. Seine Transaktionen im Jahr 1856, die viele Millionen Pfd.St. umfassen, sind auf den Maßstab einer Million verkürzt.

¹⁰³ *ctd*

Einnahmen	Pfd.St.
Wechsel von Bankiers und Kaufleuten nach Datum zahlbar	553 596
Cheques von Bankiers etc. bei Sicht zahlbar	357 715
Landbank-Noten	9 627
Noten der Bank von England	68 554
Gold	28 089
Silber und Kupfer	1 486
Post Office Orders	933
Totalsumme	1 000 000
£	

¹⁰³ *ctd*

Ausgaben	Pfd.St.
Wechsel nach Datum zahlbar	302 674
Cheques auf Londoner Bankiers	663 672
Noten der Bank von England	22 743
Gold	9 427
Silber und Kupfer	1 484
Totalsumme:	1 000 000

¹⁰³ *ctd* („Report from the Select Committee on the Bankacts“, July 1858, p. LXXI.)

Credit money *springs from* the function of money as means of payment, and on the other hand, the development of the credit system *increases* the function of money as means of

payment. Forms of existence of money as means of payment are at Marx's time bills of exchange, cheques, country bank notes, Bank of England notes etc., which develop because they are also forms of giving credit and earning interest. Footnote 23c354s1103akmc shows how much bigger their quantity is than the quantity of gold:

↓ Means of payment becoming the "universal material of contracts":

150:2/oo When the production of commodities has attained a certain level and extent, the function of money as means of payment begins to spread out beyond the sphere of the circulation of commodities. It becomes the universal material of contracts.¹⁰⁴ Rent, taxes and so on are transformed from payments in kind to payments in money. The great extent to which this transformation is conditioned by the total shape of the process of production is shown for example by the twice-repeated failure of the Roman Empire to levy all contributions in money. The unspeakable misery of the French agricultural population under Louis XIV, a misery so eloquently denounced by Boisguillebert, Marshall Vauban and others, was due not only to the weight of the taxes but also to the conversion of taxes in kind into taxes in money.¹⁰⁵ In Asia, on the other hand, the form of ground rent paid in kind, which is at the same time the main element in state taxation, is based on relations of production which reproduce themselves with the immutability of natural conditions. And this mode of payment in its turn acts to maintain the ancient form of production. It forms one of the secrets of the self-preservation of the Ottoman Empire. If the foreign trade imposed on Japan by Europe brings with it the transformation of rents in kind into money rents, then the exemplary agriculture of that country will be done for. Its narrowly based economic conditions of existence will be swept away.

¹⁰⁴ 'The course of trade being thus turned, from exchanging of goods for goods, or delivering and taking, to selling and paying, all the bargains are now stated upon the foot of a Price in money' ([Daniel Defoe], *An Essay upon Publick Credit*, 3rd edn, London, 1710, p. 8).

¹⁰⁵ 'Money ... has become the executioner of

154:1/o Bei gewissem Höhegrad und Umfang der Warenproduktion greift die Funktion des Geldes als Zahlungsmittel über die Sphäre der Warenzirkulation hinaus. Es wird die allgemeine Ware der Kontrakte.¹⁰⁴ Renten, Steuern usw. verwandeln sich aus Naturallieferungen in Geldzahlungen. Wie sehr diese Umwandlung durch die Gesamtgestalt des Produktionsprozesses bedingt wird, beweist z.B. der zweimal gescheiterte Versuch des römischen Kaiserreichs, alle Abgaben in Geld zu erheben. Das ungeheure Elend des französischen Landvolks unter Ludwig XIV., das Boisguillebert, Marschall Vauban usw. so beredt denunzieren, war nicht nur der Steuererhöhung geschuldet, sondern auch der Verwandlung von Naturalsteuer in Geldsteuer.¹⁰⁵ Wenn andererseits die Naturalform der Grundrente, in Asien zugleich das Hauptelement der Staatssteuer, dort auf Produktionsverhältnissen beruht, welche sich mit der Unwandelbarkeit von Naturverhältnissen reproduzieren, erhält jene Zahlungsform rückwirkend die alte Produktionsform. Sie bildet eines der Selbsterhaltungsgeheimnisse des türkischen Reichs. Zieht der durch Europa aufoktroyierte auswärtige Handel in Japan die Verwandlung von Naturalrente in Geldrente nach sich, so ist es um seine musterhafte Agrikultur geschehn. Ihre engen ökonomischen Existenzbedingungen werden sich auflösen.

¹⁰⁴ „Der Charakter des Geschäftsverkehrs hat sich derartig gewandelt, daß statt Tausch von Gütern gegen Güter oder statt Lieferung und Abnahme, jetzt Verkauf und Bezahlung stattfindet und alle Geschäfte ... sich nunmehr als reine Geldgeschäfte darstellen.“ ([D. Defoe,] *An Essay upon Publick Credit*“, 3. ed., Lond. 1710, p. 8.)

¹⁰⁵ „Das Geld ist der Henker aller Dinge ge-

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everything.’ Finance is ‘the alembic in which a frightful quantity of goods and commodities has been distilled in order to extract that unholy essence.’ ‘Money declares war on the whole of humanity’ (Boisguillebert, *Dissertation sur la nature des richesses, de l’argent et des tributs*, ed. Daire, *Économistes Financiers*, Paris, 1843, Vol. I, pp. 413, 419, 417, 418).

worden. Die Finanzkunst ist die Retorte, in der eine schreckenerregende Menge von Gütern und Waren verdampft worden ist, um diesen unheilvollen Extrakt zu gewinnen“. „Das Geld erklärt dem ganzen Menschengeschlecht den Krieg.“ (Boisguillebert, „Dissertation sur la nature des richesses, de l’argent et des tributs“, edit. Daire, „Économistes financiers“, Paris 1843, t. 1, p. 413, 419, 417, 418.)

If production has become to a certain extent the production of *commodities*, the function of means of payment reaches beyond the circulation of commodities, for taxes, rent, etc. Transformation of taxes in kind into money taxes destroys the older modes of production.

152:1–2 In every country, certain days become established as the dates on which general settlements are made. They depend in part, leaving aside other circular movements described by reproduction, upon the natural conditions of production, which are bound up with the alternation of the seasons. They also regulate the dates for payments which have no direct connection with the circulation of commodities, such as taxes, rents and so on. The fact that the quantity of money required to make these isolated payments over the whole surface of society falls due on certain days of the year causes periodic, but entirely superficial, perturbations in the economy of the means of payment.¹⁰⁶

155:1/o In jedem Land setzen sich gewisse allgemeine Zahlungstermine fest. Sie beruhen teilweise, von andren Zirkelläufen der Reproduktion abgesehen, auf den an Wechsel der Jahreszeit gebundenen Naturbedingungen der Produktion. Sie regeln ebenso Zahlungen, die nicht direkt der Warenzirkulation entspringen, wie Steuern, Renten usw. Die Geldmasse, die zu diesen über die ganze Oberfläche der Gesellschaft zersplitterten Zahlungen an gewissen Tagen des Jahres erheischt ist, verursacht periodische, aber ganz oberflächliche Perturbationen in der Ökonomie der Zahlungsmittel.¹⁰⁶

¹⁰⁶ ‘On Whitsuntide, 1824,’ said Mr Craig before the Commons Committee of 1826, ‘there was such an immense demand for notes upon the banks of Edinburgh, that by 11 o’clock we had not a note left in our custody. We sent round to all the different banks to borrow, but could not get them, and many of the transactions were adjusted by slips of paper only; yet by three o’clock the whole of the notes were returned into the banks from which they had issued! It was a mere transfer from hand to hand.’ Although the average effective circulation of bank-notes in Scotland is less than £3m., yet on certain settlement days in the year every single note in the possession of the bankers, amounting altogether to about £7m., is called into activity. On these occasions the notes have a single and specific function to perform, and as soon as they have performed it they flow back into the various banks from which they issued. (See John Fullarton, *Regulation of Currencies*, London 1845, p. 86, note.) In explanation

¹⁰⁶ „Pfingstmontag 1824“, erzählt Herr Craig dem parlamentarischen Untersuchungskomitee von 1826, „war eine solche ungeheure Nachfrage für Banknoten in Edinburgh, daß wir um 11 Uhr keine einzige Note mehr in unsrem Verwahrsam hatten. Wir sandten der Reihe nach zu den verschiedenen Banken, um welche zu borgen, konnten aber keine erhalten, und viele Transaktionen konnten nur durch slips of paper berichtigt werden. Um 3 Uhr nachmittags jedoch waren bereits sämtliche Noten returniert zu den Banken, von denen sie ausliefen. Sie hatten nur die Hände gewechselt.“ Obgleich die effektive Durchschnittszirkulation der Banknoten in Schottland weniger als 3 Mill. Pfd.St. beträgt, wird dennoch, an verschiedenen Zahlungsterminen im Jahr, jede im Besitz der Bankiers befindliche Note, alles in allem ungefähr 7 Mill. Pfd.St., in Aktivität gerufen. Bei diesen Gelegenheiten haben die Noten eine einzige und spezifische Funktion zu vollziehen, und sobald sie vollzogen, fließen sie zu den

it should be added that in Scotland, at the time of Fullarton's work, notes and not cheques were used to withdraw deposits.

respektiven Banken zurück, von denen sie ausliefen. John Fullarton, [Ful45, p. 86, Note]. Zum Verständnis ist hinzuzufügen, daß in Schottland zur Zeit von Fullartons Schrift nicht cheques, sondern nur Noten für die Deposits ausgegeben wurden.

In German MEW 23 it is ambiguous if there should be a paragraph break here or not. In

Volksausgabe there isn't, in Moore-Aveling there is, in Fowkes there isn't. Judged from the text,

what follows now is still part of the above paragraph. Therefore I treat it as one paragraph.

From the law of the rapidity of circulation of the means of payment, it follows that the quantity of the means of payment required for all periodic payments, whatever their source, is in direct proportion to the length of the periods.¹⁰⁷

¹⁰⁷ To the question 'if there were occasion to raise 40 millions p.a., whether the same 6 millions (gold) ... would suffice for such revolutions and circulations thereof, as trade requires,' Petty replies in his usual masterly manner, 'I answer yes: for the expense being 40 millions, if the revolutions were in such short circles, viz., weekly, as happens among poor artisans and laborers, who receive and pay every Saturday, then 40/52 parts of 1 million of money would answer these ends; but if the circles be quarterly, according to our custom of paying rent, and gathering taxes, then 10 million were requisite. Wherefore supposing payments in general to be of a mixed circle between one week and 13, then add 10 millions to 40/52, the half of which will be 5 1/2, so as if we have 5 1/2 millions we have enough' (William Petty, *Political Anatomy of Ireland*, 1672, London edition, 1691, pp. 13, 14) [what Marx cites here is Petty's essay *Verbum Sapienti*, which appeared as a supplement to the *Political Anatomy of Ireland*].

The quantitative aspect of money not only as means of purchase and payment for the movement of commodities, but also for other payments, and its seasonal fluctuations. The needed amount of money changes periodically, with the seasonal payment dates. Very superficial disturbances!

152:3/o The development of money as a means of payment makes it necessary to accumulate it in preparation for the days when the sums which are owing fall due. While hoarding, considered as an independent form of self-enrichment, vanishes with the advance of bourgeois society, it grows at

Aus dem Gesetz über die Umlaufgeschwindigkeit der Zahlungsmittel folgt, daß für alle periodischen Zahlungen, welches immer ihre Quelle, die notwendige Masse der Zahlungsmittel in geradem Verhältnis zur Länge der Zahlungsperioden steht.¹⁰⁷

¹⁰⁷ Auf die Frage, „Ob, wenn die Notwendigkeit bestände, 40 Millionen im Jahre umzusetzen, dieselben 6 Millionen“ (Gold) „für die sich ergebenden Umläufe und Kreisläufe genügen würden, die der Handel erfordere?“ antwortet Petty mit seiner gewohnten Meisterschaft: „Ich antworte ja: für den Betrag von 40 Millionen würden schon 40/52 von 1 Million ausreichen, wenn die Umläufe so kurzfristige, d.h. wöchentliche wären, wie das unter armen Handwerkern und Arbeitern geschieht, die jeden Sonnabend erhalten und zahlen; wenn jedoch die Termine vierteljährlich sind, wie bei uns üblicherweise Pacht gezahlt und Steuern erhoben werden, dann benötigt man 10 Millionen. Wenn wir also annehmen, daß im allgemeinen die Zahlungen zu verschiedenen Terminen zwischen 1 und 13 Wochen erfolgen, muß man 10 Millionen zu 40/52 addieren, wovon die Hälfte ca. 5 1/2 Millionen beträgt, so daß also 5 1/2 Millionen ausreichen würden.“ (William Petty, „*Political Anatomy of Ireland*. 1672“, edit. Lond. 1691, p. 13, 14)

156:1 Die Entwicklung des Geldes als Zahlungsmittel ernötigt Geldakkumulationen für die Verfalltermine der geschuldeten Summen. Während die Schatzbildung als selbständige Bereicherungsform verschwindet mit dem Fortschritt der bürgerlichen Gesellschaft, wächst sie umgekehrt mit dem

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the same time in the form of the accumulation of a reserve fund of the means of payment.

selben in der Form von Reservefonds der Zahlungsmittel.

Development of money as means of payment requires its development as a hoard, not as a form of enrichment, but for reserves.

3.3.c. World Money

This last section is very brief. The corresponding section in *Contribution* is a little more explicit. For instance, the first sentence in the first paragraph in *Capital* is only the last sentence in the corresponding first paragraph 381:1.

Although Marx does not often say so explicitly, it is apparently his understanding that the social metabolism with division of labor and abstract human labor takes place on a national scale. According to Marx's understanding, money has nationally the economic function to be standard of value, and from this follows also means of circulation and then also the independent incarnation of abstract wealth. All this follows from its function for domestic production, namely, being the the appropriate surface expression of abstract human labor (in other words, money being the social institution which induces the producers to abide by the law of value). Domestically, money is general equivalent because it represents abstract human labor. Therefore it tries to be general equivalent also in international trade. Internationally, money assumes the role of general equivalent before the labors themselves have been equalized. This world-wide general equivalent has then the effect of melding the domestic labors into one world-wide human labor in the abstract.

153:1 When money leaves the domestic sphere of circulation it strips off the local forms it has acquired domestically, as the standard of prices, gold coin, small change, and paper bills, and falls back into the original bullion form of the precious metals.

156:2 Mit dem Austritt aus der innern Zirkulation streift das Geld die dort aufschießenden Lokalformen von Maßstab der Preise, Münze, Scheidemünze und Wertzeichen, wieder ab und fällt in die ursprüngliche Barrenform der edlen Metalle zurück.

At Marx's time, the international monetary system was different than it is now. Each national currency was based on gold; gold therefore was the common denominator establishing the exchange rates between these currencies. The central banks did not hold each other's currencies but they held gold bullion. Therefore only gold could settle international balances. I.e., in order to perform its most advanced functions, money fell back into its most primitive form. Marx gives a very brief explanation why this is so:

In world trade, commodities unfold their values on a universal scale.

Im Welthandel entfalten die Waren ihren Wert universell.

Trade and commerce within a nation has a different character than world trade. The labor within every nation is drawn together into a developed system of division of labor, and it is equalized within the nation. But these systems of division of labor are only local; they interact with each other and there may be a world market with respect to certain commodities, but overall there is not one single system of division of labor which encompasses all labor on this planet, and the market has not yet equalized all the labor throughout the world. A Swedish krone represents labor of Sweden, it does not represent the labor of everybody in the world. Only the labor contained in those commodities which are traded internationally begin a process of international equalization. When such an internationally traded good enters the market, the labor contained in it tries out to what extent it is human labor in general,

instead of merely to what extent it is human labor belonging to this or that local economy. This is what Marx means by “unfolding their value on a universal scale.”

This is why their independent value form confronts them here as world money.

Ihre selbständige Wertgestalt tritt ihnen daher hier auch gegenüber als Weltgeld.

Fowkes misunderstands the “auch.” He writes: “Their

independent value form thus confronts them here too as world

money.”

Here we come to a deeper definition of world money: it can circulate internationally only because it represents human labor in general, regardless of nationality. It is a more general and simpler concept than the national moneys, and this simplicity of concept results in a simplicity of form:

Only on the world market, money fully functions as the commodity whose bodily form is at the same time the form in which human labor in the abstract becomes a social reality. Its mode of existence becomes adequate to its concept.

Erst auf dem Weltmarkt funktioniert das Geld in vollem Umfange als die Ware, deren Naturalform zugleich unmittelbar gesellschaftliche Verwirklichungsform der menschlichen Arbeit in abstracto ist. Seine Daseinsweise wird seinem Begriff adäquat.

This is an enticing example of a Hegelian return to the beginning: that which is most developed turns into that which is most simple, and only in this way fully expresses the truth contained in this simplicity. But in my view, something less mysterious is going on here: the primitive form which world money took at Marx’s time does not come from its generality, but from the fact that the institutions facilitating international trade and payments were not yet very well developed. The thing itself had to step in because the more refined forms of money were not yet in existence.

Next Marx discusses the *differences* between world money and the domestic moneys.

153:2 Within the sphere of domestic circulation, there can only be one commodity which by serving as a measure of value becomes money. On the world market a double standard prevails, both gold and silver.¹⁰⁸

153:1 In der innern Zirkulationssphäre kann nur eine Ware zum Wertmaß und daher als Geld dienen. Auf dem Weltmarkt herrscht doppeltes Wertmaß, Gold und Silber.¹⁰⁸

¹⁰⁸ Hence the absurdity of all legislation laying down that the banks of a country should form reserves only of the particular precious metal circulating within the country as money. The ‘pleasant difficulties’ created in this way by the Bank of England for itself are a well-known example. On the subject of the major historical epochs in the relative value of gold and silver, see Karl Marx, op. cit., pp. 136 ff. [English edition, pp. 155 ff.]. Sir Robert Peel, by his Bank Act of 1844, sought to tide over the difficulty by allowing the Bank of England to issue notes against silver bullion, on condition that the reserve of silver should never exceed more than one fourth of the reserve of gold. For that purpose, the value of silver is estimated according to its market price

¹⁰⁸ Daher die Abgeschmacktheit jeder Gesetzgebung, die den Nationalbanken vorschreibt, nur das edle Metall aufzuschätzen, das im Innern des Landes als Geld funktioniert. Die so selbstgeschaffnen „holden Hindernisse“ der Bank von England z.B. sind bekannt. Über die großen historischen Epochen des relativen Wertwechsels von Gold und Silber siehe Karl Marx, l.c. p. 136sq.—Zusatz zur 2. Ausgabe: Sir Robert Peel suchte in seinem Bankact von 1844 dem Mißstand dadurch abzuhefen, daß er der Bank von England erlaubte, Noten auf Silberbullion auszugeben, so daß jedoch der Silbervorrat nie mehr als ein Viertel des Goldvorrats. Der Silberwert wird dabei geschätzt nach seinem Marktpreis (in Gold) auf dem Londoner Markt. {Zur 4. Auf-

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(in gold) on the London market. [The following was added by Engels to the fourth German edition:] We find ourselves once more in a period of strong changes in the relative values of gold and silver. About twenty-five years ago the ratio expressing the relative value of gold and silver was $15\frac{1}{2}:1$; now it is approximately $22:1$, and silver is still constantly falling as against gold. This is essentially the result of a revolution in the mode of production of both metals. Formerly gold was obtained almost exclusively by washing it out from gold-bearing alluvial deposits, products of the weathering of auriferous rocks. Now this method has become inadequate and has been forced into the background by the processing of quartz lodes themselves, a mode of extraction which formerly was only of secondary importance, although well known to the ancients (Diodorus, III, 12–14). Moreover, not only were huge new silver deposits discovered in North America in the western part of the Rocky Mountains, but these and the Mexican silver mines were really opened up by the laying of railways, which made possible the shipment of modern machinery and fuel and in consequence the mining of silver on a very large scale at low cost. However, there is a great difference in the way the two metals occur in the quartz lodes. The gold is mostly native, but disseminated throughout the quartz in minute quantities. The whole mass of the vein must therefore be crushed and the gold either washed out or extracted by means of mercury. Often 1,000,000 grammes of quartz barely yield 1–3 grammes of gold, and very seldom do they yield 30–60 grammes. Silver is seldom found native: however, it occurs in special quartz that is separated from the lode with comparative ease and contains mostly 40–90 per cent silver, and is also contained, in smaller quantities, in copper, lead and other ores which in themselves are worthwhile working. From this alone it is apparent that the labor expended on the production of gold is tending to increase, while that expended on silver production has decidedly decreased, which quite naturally explains the drop in the value of the latter. This fall in value would express itself in a still greater fall in price if the price of silver were not pegged even today by artificial means. But America's rich silver deposits have so far barely been tapped, and thus the prospects are that the value of this metal will keep on dropping for rather a long time to come.

lage.—Wir befinden uns wieder in einer Epoche starken relativen Wertwechsels von Gold und Silber. Vor etwa 25 Jahren war das Wertverhältnis des Goldes zum Silber = $15\frac{1}{2}:1$, jetzt ist es ungefähr = $22:1$, und Silber fällt noch fortwährend gegen Gold. Dies ist wesentlich Folge einer Umwälzung in der Produktionsweise beider Metalle. Früher wurde Gold fast nur durch Auswaschen goldhaltiger Alluvialschichten, der Verwitterungsprodukte goldhaltiger Gesteine, gewonnen. Jetzt reicht diese Methode nicht mehr aus und ist in den Hintergrund gedrängt durch die früher nur in zweiter Linie betriebene, obwohl schon den Alten (Diodor, III, 12–14) wohlbekannte Bearbeitung der goldhaltigen Quarzgänge selbst. Andererseits wurden nicht nur im Westen der amerikanischen Felsengebirge ungeheure neue Silberlager entdeckt, sondern diese und die mexikanischen Silbergruben durch Eisenbahnen erschlossen, die Zufuhr von moderner Maschinerie und von Brennstoff und dadurch Silbergewinnung auf größtem Maßstab und mit geringeren Kosten ermöglicht. Es besteht aber ein großer Unterschied in der Art, wie beide Metalle in den Erzgängen vorkommen. Das Gold ist meist gediegen, aber dafür in winzig kleinen Mengen im Quarz zerstreut; die ganze Gangart muß daher zerstampft und das Gold ausgewaschen, resp. durch Quecksilber ausgezogen werden. Auf 1 000 000 Gramm Quarz kommt dann oft kaum 1–3, sehr selten 30–60 Gramm Gold. Silber kommt selten gediegen, dafür aber in eigenen, verhältnismäßig leicht von der Gangart zu trennenden Erzen vor, die meist von 40–90 Prozent Silber enthalten; oder aber es ist in geringeren Mengen enthalten in den an sich schon Bearbeitung lohnenden Erzen von Kupfer, Blei etc. Schon hieraus geht hervor, daß, während die Produktionsarbeit des Goldes sich eher vermehrt, die des Silbers sich entschieden vermindert hat, der Wertfall des letzteren sich also ganz natürlich erklärt. Dieser Wertfall würde sich in noch größtem Preisfall ausdrücken, würde nicht der Silberpreis auch jetzt noch durch künstliche Mittel hochgehalten. Die Silberschätze von Amerika sind aber erst zum kleinen Teil zugänglich gemacht, und so ist alle Aussicht vorhanden, daß der Silberwert noch längere Zeit am Sinken bleibt. Hierzu muß noch mehr beitragen die relative Abnahme des Silberbedarfs für Gebrauchs- und Luxusartikel, sein Ersatz durch plättierte Waren, Aluminium etc. Danach er-

A still greater contributing factor here is the relative decrease in the need for silver for articles of general use and for luxuries, that is its replacement by plated goods, aluminium, etc. One may thus gauge the utopianism of the bimetallist idea that compulsory international quotation will raise silver again to the old value ratio of 1:15 1/2. It is more likely that silver will forfeit its money function more and more in the world market.

messe man den Utopismus der bimetallistischen Vorstellung, ein internationaler Zwangskurs werde das Silber auf das alte Wertverhältnis von 1:15 1/2 wieder hinaufschrauben. Eher dürfte das Silber auch auf dem Weltmarkt seine Geldqualität mehr und mehr einbüßen.—F. E.}

Internationally double standard, even though in the domestic circulations, only one standard prevails. (Why can this violation against the concept of money persist internationally?) Due to this duplication, the two functions of money, the national and the international, can be seen to be different. Even in a country with gold standard, the central bank must have silver reserves for the trade with countries with silver standard.

World money has the same three functions as domestic money, but there is a shift in importance:

154:1/o World money serves as the universal means of payment, as the universal means of purchase, and as the absolute social materialization of wealth as such (UNIVERSAL WEALTH). Its predominant function is as means of payment in the settling of international balances. Hence the slogan of the Mercantile System: balance of trade.¹⁰⁹ Gold and silver serve as international means of purchase essentially only when the customary equilibrium in the interchange of products between different nations is suddenly disturbed. And, lastly, world money serves as the universally recognized social materialization of wealth, whenever it is not a matter of buying or paying, but of transferring wealth from one country to another, and whenever its transfer in the form of commodities is ruled out, either by the conjuncture of the market, or by the purpose of the transfer itself.¹¹⁰

157:2/o Das Weltgeld funktioniert als allgemeines Zahlungsmittel, allgemeines Kaufmittel und absolut gesellschaftliche Materiatur des Reichtums überhaupt (universal wealth). Die Funktion als Zahlungsmittel, zur Ausgleichung internationaler Bilanzen, herrscht vor. Daher das Lösungswort des Merkantilsystems—Handelsbilanz!¹⁰⁹ Zum internationalen Kaufmittel dienen Gold und Silber wesentlich, sooft das herkömmliche Gleichgewicht des Stoffwechsels zwischen verschiedenen Nationen plötzlich gestört wird. Endlich als absolut gesellschaftliche Materiatur des Reichtums, wo es sich weder um Kauf noch Zahlung handelt, sondern um Übertragung des Reichtums von einem Land zum andren, und wo diese Übertragung in Warenform entweder durch die Konjunktoren des Warenmarkts oder den zu erfüllenden Zweck selbst ausgeschlossen wird.¹¹⁰

The German “*wesentlich*” is sometimes used for brief characterizations which capture

the essentials although they may not cover all the details or all the possibilities. I translated it here

with “essentially only.”

Footnote 109 is another polemic against the quantity theory of money.

¹⁰⁹ The opponents of the Mercantile System, a system which considered the settlement of surplus trade balances in gold and silver as the aim of international trade, were for their part entirely mistaken as to the function of world money. I have thoroughly demonstrated elsewhere, tak-

¹⁰⁹ Die Gegner des Merkantilsystems, welches die Saldierung überschüssiger Handelsbilanz durch Gold und Silber als Zweck des Welthandels behandelte, verkannten ihrerseits durchaus die Funktion des Weltgeldes. Wie die falsche Auffassung der Gesetze, welche die

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ing Ricardo as an example, the way in which a false conception of the laws which regulate the quantity of the circulating medium is reflected in a false conception of the international movement of the precious metals (*Contribution*, pp. 398:1/o sq.). Ricardo's erroneous dogma: 'An unfavourable balance of trade never arises but from a redundant currency ... The exportation of the coin is caused by its cheapness, and is not the effect, but the cause of an unfavourable balance,' already occurs in Barbon: 'The balance of Trade, if there be one, is not the cause of sending away the money out of a nation; but that proceeds from the difference of the value of bullion in every country' (N. Barbon, [Bar96, pp. 59, 60]). MacCulloch, in *The Literature of Political Economy: A Classified Catalogue*, London, 1845, praises Barbon for this anticipation, but very wisely avoids even mentioning the naïve forms in which the absurd presuppositions of the 'currency principle' appear in Barbon's work. The uncritical and even dishonest nature of MacCulloch's catalogue reaches its summit in the sections devoted to the history of the theory of money, where he is flattering Lord Overstone (ex-banker Loyd), whom he describes as 'facile princeps argentariorum' [the recognized king of the money merchants].

¹¹⁰ For instance, in the case of subsidies, money loans for carrying on wars or for enabling banks to resume cash payments, etc., value may be required precisely in the form of money.

Masse der Zirkulationsmittel regeln, sich in der falschen Auffassung der internationalen Bewegung der edlen Metalle nur widerspiegelt, habe ich ausführlich an Ricardo nachgewiesen (l.c. p. 398:1/o sqq. Sein falsches Dogma: „Eine ungünstige Handelsbilanz kann nie anders als durch eine Überfülle von Zirkulationsmitteln entstehen ... Die Ausfuhr von Münzen ist ihrer Billigkeit geschuldet, und ist nicht die Folge, sondern die Ursache einer ungünstigen Bilanz“ findet man daher schon bei Barbon: „Die Handelsbilanz, wenn es eine solche gibt, ist nicht die Ursache dafür, daß das Geld aus einem Lande ausgeführt wird. Die Ausfuhr ergibt sich vielmehr aus dem Wertunterschied der Edelmetalle in jedem Land.“ N. Barbon [Bar96, p. 59]. MacCulloch in „The Literature of Political Economy: a classified Catalogue“, Lond. 1845, belobt Barbon für diese Antizipation, vermeidet aber wohlweislich die naiven Formen, worin bei B. die absurden Voraussetzungen des „currency principle“ noch erscheinen, auch nur zu erwähnen. Die Kritiklosigkeit und selbst Unehrlichkeit jenes Katalogs gipfeln in den Abschnitten über die Geschichte der Geldtheorie, weil MacCulloch hier als Sykophant des Lord Overstone (exbanker Loyd), den er „facile princeps argentariorum“ nennt, schwanzwedelt.

¹¹⁰ Z.B. bei Subsidien, Geldanleihen zur Kriegführung oder zur Wiederaufnahme der Barzahlungen von Banken usw. kann Wert grade in der Geldform erheischt sein.

Question 619 *Why is means of payment, and not means of purchase, the predominant function of international money?* 2010fa, 2008SP, 2007fa, 2004fa, 2003fa, 2002fa, 2000fa, 1999SP, 1998WI.

In 144:3/o, Marx had mentioned that the gold hoards so copiously created by private citizens at that time had the economic function of allowing the quantity of the circulating medium to ebb and flow. These hoards not only served as buffer stocks for the domestic circulation, but also for international payments:

155:1 Just as every country needs a reserve fund for its internal circulation, so too it requires one for circulation in the world market. The functions of hoards, therefore, arise in part out of the function of money as means of payment and circulation internally, and in part out of its function as a world money.^{110a} In this latter role it is always the genuine money-commodity, gold and silver in their physical shape, which is required.

158:1/o Wie für seine innere Zirkulation, braucht jedes Land für die Weltmarktzirkulation einen Reservefonds. Die Funktionen der Schätze entspringen also teils aus der Funktion des Geldes als inneres Zirkulations- und Zahlungsmittel, teils aus seiner Funktion als Weltgeld.^{110a} In der letzteren Rolle ist stets die wirkliche Geldware, leibhaftes Gold und Silber, erheischt, weswegen James Stuart Gold und Silber,

For that reason Sir James Steuart expressly characterizes gold and silver as ‘money of the world’ in order to distinguish them from their merely local representatives.

^{110a} ‘I would desire, indeed, no more convincing evidence of the competency of the machinery of the hoards in specie-paying countries to perform every necessary office of international adjustment, without any sensible aid from the general circulation, than the facility with which France, when but just recovering from the shock of a destructive foreign invasion, completed within the space of 27 months the payment of her forced contribution of nearly 20 millions to the allied powers, and a considerable proportion of the sum in specie, without any perceptible contraction or derangement of her domestic currency, or even any alarming fluctuation of her exchanges’ (Fullarton, op. cit., p. 141). [Added by Engels to the fourth German edition:] We have a still more striking example in the facility with which the same France was able in 1871–3 to pay off within 30 months a forced contribution more than ten times as great, a considerable part of it likewise in specie.

im Unterschied von ihren nur lokalen Stellvertretern, ausdrücklich als „money of the world“ charakterisiert.

^{110a} Note zur 2. Ausgabe: „Tatsächlich könnte ich mir keinen überzeugenderen Beweis dafür wünschen, daß der Mechanismus der Schatzbildung in Ländern mit Metallwährung imstande ist, jede notwendige Funktion bei Begleichung internationaler Verbindlichkeiten zu erfüllen, und zwar ohne wahrnehmbare Unterstützung durch die allgemeine Zirkulation, als die Leichtigkeit, mit der Frankreich, das erst im Begriffe war, sich von der Erschütterung durch eine zerstörende feindliche Invasion zu erholen, in einem Zeitraum von 27 Monaten die Zahlung der ihm auferlegten Kriegsentschädigung von fast 20 Millionen an die verbündeten Mächte leistete, und zwar einen beträchtlichen Teil dieser Summe in Metallgeld, ohne merkbare Einschränkung oder Störung des inländischen Geldumlaufs oder irgendwelche alarmierende Schwankungen seines Wechselkurses.“ Fullarton, [Ful45, p. 141]. {Zur 4. Auflage.—Ein noch schlagenderes Beispiel haben wir in der Leichtigkeit, womit dasselbe Frankreich 1871–1873 in 30 Monaten eine mehr als zehnfach größere Kriegsentschädigung, ebenfalls zum bedeutenden Teil in Metallgeld, abzutragen imstande war.—F.E.}

Question 620 *How does the domestic functions of the gold reserves of a country differ from its international functions? Do these two functions come into conflict with each other?* 2004fa, 2000fa, 1997ut, 1997sp.

Next Marx discusses the international movements of gold and silver:

155:2/o The stream of gold and silver follows a twofold movement. On the one hand, it spreads out from its sources all over the world, and is absorbed to various extents into the different national spheres of circulation, where it enters into the various channels of internal circulation. There it replaces abraded gold and silver coins, supplies the material for articles of luxury, and petrifies into hoards.¹¹¹ This first movement is mediated through the direct exchange of the labor of individual countries which has been realized in commodities for the labor realized in the precious metals by the gold- and silver-producing countries. On the

159:1 Die Bewegung des Gold- und Silberstroms ist eine doppelte. Einerseits wälzt er sich von seinen Quellen über den ganzen Weltmarkt, wo er von den verschiedenen nationalen Zirkulationssphären in verschiedenem Umfang abgefangen wird, um in ihre inneren Umlaufskanäle einzugehn, verschlissene Gold- und Silbermünzen zu ersetzen, das Material von Luxuswaren zu liefern und zu Schätzen zu erstarren.¹¹¹ Diese erste Bewegung ist vermittelt durch direkten Austausch der in Waren realisierten Nationalarbeiten mit der in edlen Metallen realisierten Arbeit der Gold und Silber produzierenden Länder. Andererseits laufen Gold

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other hand, gold and silver continually flow back and forth between the different national spheres of circulation, and this movement follows the unceasing fluctuations of the rate of exchange.¹¹²

¹¹¹ ‘Money is shared among the nations in accordance with their need for it ... as it is always attracted by the products’ (Le Trosne, op. cit., p. 916). ‘The mines which are continually giving gold and silver, do give sufficient to supply such a needful balance to every nation’ (J. Vanderlint, [Van34, p. 40]).

¹¹² ‘Exchanges rise and fall every week, and at some particular times in the year run high against a nation, and at other times run as high on the contrary’ (N. Barbon, [Bar96, p. 39]).

und Silber fortwährend hin und her zwischen den verschiedenen nationalen Zirkulationssphären, eine Bewegung, die den unaufhörlichen Oszillationen des Wechselkurses folgt.¹¹²

¹¹¹ „Das Geld verteilt sich auf die Nationen nach ihren Bedürfnissen ... indem es immer durch die Produkte angezogen wird.“ Le Trosne, [LT46, p. 916]. „Die Minen, die fortwährend Gold und Silber liefern, sind ergiebig genug, um jeder Nation dieses notwendige Quantum zu liefern.“ J. Vanderlint, [Van34, p. 40].

¹¹² „Die Wechselkurse steigen und fallen in jeder Woche, sie steigen zu bestimmten Zeiten des Jahres zuungunsten einer Nation in die Höhe und erreichen zu anderen Zeiten die gleiche Höhe zu deren Vorteil.“ N. Barbon, [Bar96, p. 39].

The very last paragraph of the chapter about Money discusses the modern dictates of efficiency to reduce the stock of money to a minimum.

156:1 Countries with developed bourgeois production limit the hoards, which are concentrated in the strong rooms of the banks, to the minimum required for the performance of their specific functions.¹¹³

This increased efficiency however makes the system more vulnerable. The two functions of the money stock, for domestic or international circulation, come now in conflict. Footnote 113 is an argument against Peel’s 1844 Bank Act, which made the Bank of England’s ability to issue short term credit (by the conversion of bank notes of private issuers into its own notes) dependent on the level of gold reserves:

¹¹³ These different functions can come dangerously into conflict whenever gold and silver have also to serve as a fund for the conversion of bank notes.

160:1 Länder entwickelter bürgerlicher Produktion beschränken die in Bankreservoirs massenhaft konzentrierten Schätze auf das zu ihren spezifischen Funktionen erheischte Minimum.¹¹³

¹¹³ Diese verschiedenen Funktionen können in gefährlichen Konflikt geraten sobald die Funktion eines Konversionsfonds für Banknoten hinzutritt.

This is very terse. Marx could have said much more about the contradictions between domestic money and international money. As long as private gold hoards were ample, they could easily satisfy their two different functions, for domestic and international circulation. However when hoards are minimized since they are considered an unprofitable dead weight, these two functions get into contradiction with each other. This contradiction persists even today. If international transactions create an unwanted increase in high-powered currency, then the central bank must “sterilize” these transactions. International currency movements may also make it difficult or impossible for the central bank to pursue the monetary policy indicated by the domestic economic conditions. In the world monetary system since World War II, the dollar and later a bundle of national currencies serve as world money. The fact that national currencies serve as world money is again a source of conflicts.

Marx’s final remark: under the modern dictates of efficiency, larger hoards are no longer a sign of more wealth but a sign of malfunction.

Whenever these hoards are strikingly above their average level, this is, with some excep-

Mit gewisser Ausnahme zeigt auffallendes Überfüllen der Schatzreservoirs über ihr

tions, an indication of stagnation in the circulation of commodities, i.e. of an interruption in the flow of their metamorphoses.¹¹⁴

Marx is witnessing here a change in regime: the former regime in which numerous individual gold hoards formed an extremely elastic supply to the changing circulation needs was replaced by a regime with much more centralized and relatively much smaller currency reserves. The footnote illustrates the new-found sense of economy, which considered gold hoards as unproductive and according to which a country could also have too much money.

¹¹⁴ ‘What money is more than of absolute necessity for a Home Trade, is dead stock ... and brings no profit to that country it’s kept in, but as it is transported in trade, as well as imported’ (John Bellers, *Essays, etc.*, p. 13). ‘What if we have too much coin? We may melt down the heaviest and turn it into the splendour of plate, vessels or utensils of gold or silver; or send it out as a commodity, where the same is wanted or desired; or let it out at interest where interest is high’ (W. Petty, *Quantulumcunque*, p. 39). ‘Money is but the fat of the Body Politick, whereof too much doth as often hinder its agiliy, as too little makes it sick ... as fat lubricates the motion of the muscles, feeds in want of victuals, fills up the uneven cavities, and beautifies the body, so doth money in the state quicken its action, feeds from abroad in time of dearth at home; evens accounts ... and beautifies the whole; altho’ more especially the particular persons that have it in plenty’ (W. Petty, *Political Anatomy of Ireland*, pp. 14, 15) [in fact, this is again the supplement, *Verbum Sapienti*].

Durchschnittsniveau Stockung der Warenzirkulation an oder unterbrochenen Fluß der Warenmetamorphose.¹¹⁴

¹¹⁴ „Was an Geld mehr vorhanden ist, als für den inländischen Handel unbedingt notwendig, stellt totes Kapital dar, und bringt dem Lande, das es besitzt, keinen Gewinn, außer wenn es selbst exportiert bzw. importiert wird.“ (John Bellers, *Essays etc.*, p. 13.) „Was aber, wenn wir nun zuviel gemünztes Geld haben? Wir können dann das vollwichtigste einschmelzen und es zu prächtigem Tischgerät, zu Gefäßen und Hausrat aus Gold und Silber umarbeiten; oder es als Ware dorthin schicken, wo Bedarf und Nachfrage danach besteht; oder es dort auf Zins ausleihen, wo man einen hohen Zinssatz zahlt.“ (W. Petty, „*Quantulumcunque*“ p. 39.) „Geld ist nur das Fett des Staatskörpers, weshalb zuviel davon ebenso seine Beweglichkeit behindert, wie zu wenig ihn krank macht ... wie Fett die Bewegung der Muskeln geschmeidig macht, fehlende Nahrungsmittel ersetzt, Unebenheiten ausfüllt und den Körper verschönt, so erleichtert das Geld die Bewegungen des Staates, bringt, wenn Teuerung im Inlande, vom Auslande Lebensmittel herein, begleicht Schuldenrechnungen ... und verschönt das Ganze; allerdings“, ironisch abschließend, „ganz besonders die einzelnen Personen, die viel davon haben.“ W. Petty, [Pet91, p. 14, 15 of the supplement].

Exam Question 621 *Bring two examples of transactions where money functions as money and not merely as measure of value or means of circulation. 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007SP, 2005fa, 2004fa, 1999SP.*

Term Paper Topic 622 *Comparison of Chapter Three in Capital with Chapter Two in Marx’s 1859 Contribution to the Critique of Political Economy. 2009fa.*

Part II.

The Transformation of Money into Capital

In the English version, part Two consists of three chapters. In all German editions, these three chapters formed three sections of one chapter. This is why there is a discrepancy of two for most of the remaining chapter numbers between the German and the English.

4. The General Formula of Capital

After the discussion of money and the circulation of commodities in chapter Three, Marx is now going to discuss *capital*. The first four paragraphs make the transition from commodity circulation to capital. ↓ The first sentence can be considered a summary of this transition:

157:1 The circulation of commodities is the point of departure of capital.

161:1 Die Warenzirkulation ist der Ausgangspunkt des Kapitals.

(1) ↓ First of all, this sentence can be taken as a historical statement:

Commodity production and developed commodity circulation, trade, are the historical presuppositions under which capital originates.

Warenproduktion und entwickelte Warenzirkulation, Handel, bilden die historischen Voraussetzungen, unter denen es entsteht.

↑ (1a) Commodity production must exist and trade must be developed before capital can come into being. Marx makes here an inference about the pre-capitalist period, a historical period which is not yet subject to the logic of capital. Already before capitalism, commodity circulation must have reached a certain degree of development so that capitalism can take off.

World trade and the world market, in the sixteenth century, usher in the modern life-history of capital.

Welthandel und Weltmarkt eröffnen im 16. Jahrhundert die moderne Lebensgeschichte des Kapitals.

↑ (1b) The creation of world trade and the world market in the sixteenth century ushered in what Marx calls the “modern life-history of capital.” Here Marx speaks no longer about the pre-capitalist prerequisites necessary for capital to take off, but about the first period in the history of capital itself. The term *life-history* indicates that the history of modern capital, as opposed to scattered and transient prior forms of capital (usury and merchant capital), is the history of one persistent organism, which gradually spread over the whole world. Marx generally does not use the term “capitalism,” but here it would be appropriate.

(2) It is not a coincidence that commodity circulation plays such an important role for the historical origin of capital. The element of circulation which drives towards the development of capital is *money*. Marx is about to show three things: (2a) circulation leads to money, (2b) money is the first form of appearance of capital, and (2c) money as capital distinguishes itself from money as money first only by its form of circulation.

↓ (2a) Commodity circulation leads to money.

157:2 If we disregard the material content of commodity circulation, i.e., the exchange of the various use-values, and consider only the economic forms generated by this process, we find that its ultimate product is money.

161:2 Sehen wir ab vom stofflichen Inhalt der Warenzirkulation, vom Austausch der verschiedenen Gebrauchswerte, und betrachten wir nur die ökonomischen Formen, die dieser Prozeß erzeugt, so finden wir als sein letztes Produkt das Geld.

↑ Money is the product of circulation because the necessity to circulate commodities instigates the development of the Money form of value, i.e., this necessity forces the coordination on all commodity owners so that they all express the values of their commodities in the same equivalent commodity (gold).

↓ (2b) Money is *one* of the forms which capital can assume. It is arguably not the most *important* form of capital—this honor (or curse) belongs to the commodity labor-power—but the money form nevertheless has special significance. Marx calls it the “first” form of appearance of capital:

This ultimate product of commodity circulation is the first form of appearance of capital.

Dies letzte Produkt der Warenzirkulation ist die erste Erscheinungsform des Kapitals.

The next paragraph elaborates on this last sentence ↑.

↓ (2bA) On the one hand, it is true in history that money is the first form of appearance of capital. At the present point, Marx remains a little vague about the historical transition from pre-capitalist commodity circulation to capital, for the following reason: Circulation alone does not generate capital. Circulation leads to money, which is the condition, the soil, from which a new process emerges. But soil alone is not enough, a seed is necessary as well. We will see later that the commodity labor-power is this seed. Labor-power as a commodity however implies the appropriation of the labor of others, and this entails much deeper social relations than those studied in the first three chapters of *Capital*, because it brings in class relations. In chapter Six, p. 179:4/o, Marx is going to emphasize that we are entering here a new realm. This new realm is hinted at already here, in the next sentence:

157:3 Historically speaking, capital invariably first confronts landed property in the form of money; as monetary wealth, merchants’ capital, and usurers’ capital.¹

161:3 Historisch tritt das Kapital dem Grundeigentum überall zunächst in der Form von Geld gegenüber, als Geldvermögen, Kaufmannskapital und Wucherkapital.¹

↑ This is Marx’s evidence that the statement “money is the first form of capital” is valid in *history*.

↑ The historic confrontation of capital with landed property started with monetary wealth.

↓ Footnote 1 comments on the character of this confrontation:

¹ The contrast between the power of landed property, which based on personal relations of domination and servitude, and the impersonal power of money, is clearly expressed in the two French proverbs ‘no land without its lord’ and ‘money has no master.’

¹ Der Gegensatz zwischen der auf persönlichen Knechtschafts- und Herrschaftsverhältnissen beruhenden Macht des Grundeigentums und der unpersönlichen Macht des Geldes ist klar gefaßt in den zwei französischen Sprichworten: „Nulle terre sans seigneur“, „L’argent n’a pas de maître.“

Question 624 *Why is landed property associated with personal servitude and domination, while capital, which is equally exploitative, is antagonistic to such relations?* 1997ut, 1995ut.

↓ (2bB) Also in its daily practical functions, money is the “first form of appearance of capital.”

However, we do not need to look back at the history of capital’s origin in order to recognize that money is its first form of appearance. Capital’s story is played out before our eyes every day. Every new capital makes its first appearance on the stage—i.e. the market, whether it is the commodity market, the labor market, or the money market—in the shape of money, money

Jedoch bedarf es nicht des Rückblicks auf die Entstehungsgeschichte des Kapitals, um das Geld als seine erste Erscheinungsform zu erkennen. Dieselbe Geschichte spielt täglich vor unsren Augen. Jedes neue Kapital betritt in erster Instanz die Bühne, d.h. den Markt, Warenmarkt, Arbeitsmarkt, oder Geldmarkt, immer noch als Geld, Geld, das sich durch bestimmte Prozesse in Kapital

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which has the vocation to transform itself
into capital by certain specific processes.

verwandeln soll.

The German text contains a pun
which may not be recognizable in
the translation: “history” and

“story” are in German the same
word “*Geschichte*.”
The translation “has the vocation

to” in the last sentence tried to
capture the Hegelian meaning of
“*soll*.”

↑ This is reminiscent of Haeckel’s recapitulation theory, which claims that ontogeny recapitulates phylogeny.

Question 625 () What is the difference between Marx’s “every new capital makes its first appearance on the stage ... in the shape of money” and the Post-Keynesian “any production, in a modern economy, requires access to credit” [Lav92, p. 149:1]?

(2bC) Later in this chapter, in 165:1, the structural or “logical” reasons will be given why money plays such a central role for capital.

Question 626 Compare what Marx says in chapter Four of Capital, 247:2 and 247:3, about money being the “first form of appearance of capital” with what he says in Contribution 389/o about money being the “elementary form of exchange-value.” 2012fa, 2004fa.

↓ (2c) The question “how does money as capital differ from money in its previously discussed functions?” leads us back to the circulation process.

158:1 Money as capital distinguishes itself from money as money at first only by its different form of circulation.

161:4 Geld als Geld und Geld als Kapital unterscheiden sich zunächst nur durch ihre verschiedene Zirkulationsform.

↑ This formulation is a little misleading. Even if money is a form of capital, it still is also money in the sense that it still performs one of the functions as measure of value or means of circulation or independent incarnation of abstract wealth. The above sentence has to be read as “money as capital distinguishes itself from money which performs its monetary functions unrelated to the self-expansion of value at first only by its different form of circulation.”

Just a word about our numbering scheme. Marx started the chapter with the historical link between circulation and capital, which we called here point (1). This led him to the special role which money plays for capital, called here point (2). The discovery that money is the bridge between circulation and capital allows him to take a second, deeper look at the link between circulation and capital, which will be called point (3).

(3) In order to tell whether a given amount of money is capital or not, one has to look at the *movement* in which it is engaged. ↓ (3a) We know what the movement of money looks like which is *not* capital:

The immediate form of the circulation of commodities is $C - M - C$, transformation of commodities into money and reconversion of money into commodities; selling in order to buy.

162:1 Die unmittelbare Form der Warenzirkulation ist $W - G - W$, Verwandlung von Ware in Geld und Rückverwandlung von Geld in Ware, verkaufen, um zu kaufen.

↑ Here it might be useful to recapitulate $C - M - C$. The direct barter is a transaction in which each participant pursues two different goals: realizing the value of the product given in exchange, and selecting the use-value of the product received. These two goals are so much in conflict with each other that the direct barter breaks into two halves, sale and purchase. $C - C$ becomes $C - M - C$. The first transaction $C - M$ specializes on the realization of value,

4.1. [M–C–M: Acts in Circulation and Motivation of the Agents]

and the second transaction $M - C$ on the selection of use-values. All this was discussed at length in chapters Two and Three. $\Downarrow$ (3b) New in chapter Four is the observation that these two fragments, sale and purchase, can also be put together in the reverse order: $M - C - M$. But alongside this form we find a second, specifically different form: $M - C - M$, transformation of money into commodities and reconversion of commodities into money; buying in order to sell.

Neben dieser Form finden wir aber eine zweite, spezifisch unterschiedne vor, die Form $G - W - G$, Verwandlung von Geld in Ware und Rückverwandlung von Ware in Geld, kaufen, um zu verkaufen.

$\Uparrow$ With the words: “we find a second form” Marx indicates that this is not merely an abstract possibility. Many people in modern capitalism pursue circulation in this reverse order. $M - C - M$ is, of course, the form of circulation of capital. Marx will derive what capital is from looking at its form of circulation. A delicate bootstrapping act.

$\Downarrow$ But instead of saying “we will infer the essence of capital from its form of circulation,” Marx says that money itself *becomes* capital if it goes through this form of circulation. I.e., Marx announces it not as an epistemological process of learning about social relations, but an ontological transition of these social relations themselves. The researcher only watches the development of money itself.

Money, which follows this latter course in its movement, converts itself into capital, becomes capital, and, according to its determination, already is capital.

Geld, das in seiner Bewegung diese letztere Zirkulation beschreibt, verwandelt sich in Kapital, wird Kapital und ist schon seiner Bestimmung nach Kapital.

The details of this will be developed next.

Question 628 In 247:4/o, Marx makes three statements about money engaged in $M - C - M$: (1) this money converts itself into capital, (2) this money becomes capital, and (3) according to its determination, this money already is capital. What is the difference between these three statements? (4) Why does Marx not say that this money is capital? 2010fa, 2009fa, 2008SP, 2004fa.

4.1. [M–C–M: Acts in Circulation and Motivation of the Agents]

Since money is the first form of capital, it makes sense to begin the systematic discussion of capital with money. And since money as capital differs from money as money at first only in its form of circulation, it makes sense to look at this form of circulation $M - C - M$.

4.1.a. [Description of M–C–M]

The Annotations to section 2 of chapter Three already introduced the five angles or perspectives under which Marx looks at the circulation process. Marx’s description of C–M–C in chapter Three starts with perspective [(P)] and then re-describes it in the form paradigm [(F)] because “it is necessary to look at circulation from the form side.” In chapter Four, [(F)] is not Marx’s end point but his starting point, because he arrives at M–C–M by inverting C–M–C. One might say he has entered the building not on the ground floor but on the third level. $\Downarrow$ The first paragraph stays on level [(F)]. It describes the circulation act $M - C - M$ from the form side, similar to what Marx did with $C - M - C$ in 114:3/o.

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158:3 Let us examine the circular movement $M - C - M$ a little more closely. Like the simple circulation of commodities, it passes through two opposite phases. In the first phase, $M - C$ (the purchase), the money is changed into a commodity. In the second phase, $C - M$ (the sale), the commodity is changed back into money.

↑ If one looks at the two acts separately, one sees that the first act is a purchase and the second a sale. But this is not the only thing that is visible. ↓ If one looks at the two acts as a unity, their *connection* becomes apparent. The commodity acquired by the purchase is given away again, i.e., the first act is the preparatory act for the second. The purchase is a purchase *in order to* sell.

The unity of these two phases, however, is the movement as a whole, which exchanges money for a commodity and the same commodity back for money, which buys a commodity in order to sell it or, if one neglects the formal differences between buying and selling, buys a commodity with money and then buys money with the commodity.²

↓ Footnote 2 gives the origin of this memorable formulation—not in order to explain it better, but to show that similar thoughts were expressed elsewhere in the literature.

² ‘With money one buys commodities, and with commodities one buys money.’ Mercier de la Rivière, [MdlR46, p. 543].

After looking at the two elements of the process *separately* and at their *unity*, Marx also looks at the *result* of this process. This triad (separately, unity, result) will be repeated two more times in the discussion that follows. ↓ What follows now is only the *first* formulation of the *result*:

The result which remains after completion of the process is the exchange of money for money, $M - M$.

↓ Although the empirical $M - C - M$ which we see happening in capitalism are usually exchange of money against *more* money, Marx stresses that qualitatively, beginning and end of the transaction are the same, namely, money:

If I purchase 2000 lb. cotton for £100, and resell them for £110, I have, in the end, exchanged £100 for £110, money for money.

Already when investigating the Simple form of value, in 59:3/o, Marx said that qualities have to be investigated before quantities—simply because things can have different quantities only if they have the same quality. ↓ The next paragraph reiterates that even the investigation of $M - C - M$ must at first abstract from quantities, i.e., one should look at $M - C - M$ with the first and last M quantitatively equal, despite the intentions of the practical agents to get a bigger M back than the one one started with:

158:4/o Now it is evident that the circu-

162:2 Sehn wir uns die Zirkulation $G - W - G$ näher an. Sie durchläuft, gleich der einfachen Warenzirkulation, zwei entgegengesetzte Phasen. In der ersten Phase, $G - W$, Kauf, wird das Geld in Ware verwandelt. In der zweiten Phase, $W - G$, Verkauf, wird die Ware in Geld rückverwandelt.

Die Einheit beider Phasen aber ist die Gesamtbewegung, welche Geld gegen Ware und dieselbe Ware wieder gegen Geld austauscht, Ware kauft, um sie zu verkaufen, oder wenn man die formellen Unterschiede von Kauf und Verkauf vernachlässigt, mit dem Geld Ware und mit der Ware Geld kauft.²

² „Mit Geld kauft man Waren, und mit Waren kauft man Geld.“ Mercier de la Rivière, [MdlR46, p. 543].

Das Resultat, worin der ganze Prozeß erlischt, ist Austausch von Geld gegen Geld, $G - G$.

Wenn ich für 100 Pfd.St. 2000 Pfd. Baumwolle kaufe und die 2000 Pfd. Baumwolle wieder für 110 Pfd.St. verkaufe, so habe ich schließlich 100 Pfd.St. gegen 110 Pfd.St. ausgetauscht, Geld gegen Geld.

162:3 Es ist nun zwar augenscheinlich,

4.1. [M–C–M: Acts in Circulation and Motivation of the Agents]

latory process $M - C - M$ would be absurd and devoid of content if the intention were, by using this roundabout route, to exchange two equal sums of money, £100 for £100. The miser's plan would be far simpler and surer: he holds on to his £100 instead of exposing it to the dangers of circulation.

daß der Zirkulationsprozeß $G - W - G$ abgeschmackt und inhaltslos wäre, wollte man vermittelst seines Umwegs denselben Geldwert gegen denselben Geldwert, also z.B. 100 Pfd.St. gegen 100 Pfd.St. austauschen. Ungleich einfacher und sichrer bliebe die Methode des Schatzbildners, der seine 100 Pfd.St. festhält, statt sie der Zirkulationsgefahr preiszugeben.

Question 629 *At the beginning of 248:2 Marx says that $M - C - M$ in which the second M is intended to be equal to the first is “absurd” and “devoid of content.” Nevertheless, later in the same paragraph he says that the quantitative differences should be disregarded, and proceeds to investigate $M - C - M$. Why does he insist on investigating a possibility which he just called “absurd” and “devoid of content”? 2012fa, 2010fa, 2008SP.*

Although $M - C - M$ without the second M being bigger than the first is absurd from the individual point of view, abstraction from the quantities is defensible because we are not looking at one individual act but at something done by many individual capitalists. Although they do it only because it generally results in increased quantities, for the qualitative understanding of this process there is no need to know how much surplus-value each capitalist achieves. Marx does not say all this but brings one concrete example which suggests that his thinking goes in the direction just described: $\Downarrow$ $M - C - M$ has a special character even if the intended quantitative increase is not achieved at all.

And yet, whether the merchant who has paid £100 for his cotton sells it for £110, or lets it go for £100, or even £50, in each of these cases his money has described a characteristic and original path, quite different in kind from the path of simple circulation, as for instance in the case of the peasant who sells corn, and with the money thus garnered buys clothes.

Andrerseits, ob der Kaufmann die mit 100 Pfd.St. gekaufte Baumwolle wieder verkauft zu 110 Pfd.St., oder ob er sie zu 100 Pfd.St. und selbst zu 50 Pfd.St. losschlagen muß, unter allen Umständen hat sein Geld eine eigentümliche und originelle Bewegung beschrieben, durchaus anderer Art als in der einfachen Warenzirkulation, z.B. in der Hand des Bauern, der Korn verkauft und mit dem so gelösten Geld Kleider kauft.

$\Uparrow$ Even if a merchant loses money in one of his transactions, he is still engaged in a circuit of a very specific form, which starts with money and ends with money. Form and quantity are two different aspects: a change in quantity does not change the form. In the first stage of the investigation of this circuit, which concentrates on this form, Marx disregards therefore its quantitative aspect. $\Downarrow$ And since $C - M - C$ has been investigated at length in chapter Three, Marx formulates the present stage of the research as a *comparison* of $M - C - M$ with $C - M - C$.

It is therefore first necessary to characterize the differences in form between the two circular paths $M - C - M$ and $C - M - C$. This will provide us at the same time with the difference in content lurking behind these differences in form.

Es gilt also zunächst die Charakteristik der Formunterschiede zwischen den Kreisläufen $G - W - G$ und $W - G - W$. Damit wird sich zugleich der inhaltliche Unterschied ergeben, der hinter diesen Formunterschieden lauert.

The content of $C - M - C$ is known, but the content of $M - C - M$ is not known at this point. Since $M - C - M$ grows out of $C - M - C$, Marx derives the content of $M - C - M$ as a

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modification, one might even say a perversion, of the content of $C-M-C$. First he looks therefore how the form differs in order to infer how the content differs. Marx's investigation turns therefore to a comparison between the forms $M-C-M$ and $C-M-C$.

Question 630 First Marx says that $M-C-M$ with no quantitative difference between the first and second M does not make sense, then he discusses it anyway. Why?

Question 631 Why does Marx's investigation of $M-C-M'$ take the form of a comparison with $C-M-C$? [2013fa](#), [2008fa](#), [2008SP](#).

4.1.b. [Commonalities Between $M-C-M$ and $C-M-C$]

159:1 Let us first see what the two forms have in common.

⇓ In order to show the commonalities, Marx describes the two circuits in as much detail as possible with words ambiguous enough that the same description applies to both circuits:

159:2 Both circular paths are composed of the same two opposite phases, $C-M$, sale, and $M-C$, purchase. In each phase the same material elements confront each other, namely a commodity and money, and the same economic character masks, a buyer and a seller. Each circular path is the unity of the same two opposite phases, and in each case this unity is mediated through the participation of three contractual agents, of whom one only sells, another only buys, and the third both buys and sells.

162:4 Sehn wir zunächst, was beiden Formen gemeinsam.

163:1 Beide Kreisläufe zerfallen in dieselben zwei entgegengesetzten Phasen, $W-G$, Verkauf, und $G-W$, Kauf. In jeder der beiden Phasen stehn sich dieselben zwei sachlichen Elemente gegenüber, Ware und Geld—und zwei Personen in denselben ökonomischen Charaktermasken, ein Käufer und ein Verkäufer. Jeder der beiden Kreisläufe ist die Einheit derselben entgegengesetzten Phasen, und beidemale wird diese Einheit vermittelt durch das Auftreten von drei Kontrahenten, wovon der eine nur verkauft, der andre nur kauft, der dritte aber abwechselnd kauft und verkauft.

4.1.c. [How $M-C-M$ and $C-M-C$ Differ]

If abstraction is made from quantities, the most striking difference between $C-M-C$ and $M-C-M$ is the inverted order of sale and purchase. Marx begins his analysis of the differences with a look at the process as a unity. He needs to see what this inversion means for the overall process before he can ask how the character of the individual acts is changed by this inversion. Only one of the individual acts will be scrutinized, the purchase $M-C$. Marx confirms that the purchase has indeed a different character in $C-M-C$ than in $M-C-M$. After this, Marx looks at the result of the processes, and at the end, he also notes an important difference when $C-M-C$ and $M-C-M$ are looked at as continuous processes.

Question 632 Marx usually begins with the individual components and then looks at their unity. Why does he begin with the unity here?

[Looking at the Process as a Unity]

4.1. [M–C–M: Acts in Circulation and Motivation of the Agents]

159:3 However the two circular paths $C - M - C$ and $M - C - M$ differ, obviously, by the inverted order in which the same two opposite phases of circulation are traversed. The simple circulation of commodities begins with a sale and ends with a purchase, while the circulation of money as capital begins with a purchase and ends with a sale.

163:2 Was jedoch die beiden Kreisläufe $W - G - W$ und $G - W - G$ von vornherein scheidet, ist die umgekehrte Reihenfolge derselben entgegengesetzten Zirkulationsphasen. Die einfache Warenzirkulation beginnt mit dem Verkauf und endet mit dem Kauf, die Zirkulation des Geldes als Kapital beginnt mit dem Kauf und endet mit dem Verkauf.

↓ If one looks at both phases as a unity, as Marx already did in 158:3 when looking at $M - C - M$ alone, the difference can be formulated as follows:

In the one case, the starting and end points of the movement are commodities, in the other, money. In the first form, the whole process is mediated by money, while in the second, inversely, by the commodity.

Dort bildet die Ware, hier das Geld den Ausgangspunkt und Schlußpunkt der Bewegung. In der ersten Form vermittelt das Geld, in der andren umgekehrt die Ware den Gesamtverlauf.

↑ The money in $C - M - C$, and the commodity in $M - C - M$, are held temporarily and then traded away again. Marx calls this detour a “mediation” because the circulation agents will go through this detour only if it helps them to reach their goal, i.e., they hold the money or commodity *in order to* get the commodity or money which concludes the transaction. It is therefore a mediation on level [(M)], the individual goals and motivations of the agents.

[The Purchase Considered Separately: Spending versus Advancing]

↓ Since the C in $M - C - M$ is only the mediation, not the end goal, it follows that the purchase, i.e., the act $M - C$, is different when it is part of $M - C - M$ than when it is part of $C - M - C$:

159:4 In the circulation $C - M - C$, money is in the end converted into a commodity which serves as a use-value; it has therefore been spent once and for all. In the inverted form $M - C - M$, on the contrary, the buyer lays out money in order that, as a seller, he may recover money. By his purchase of a commodity he throws money into circulation, in order to withdraw it again by the sale of the same commodity. He releases the money, but only with the cunning intention of getting it back again.

163:3 In der Zirkulation $W - G - W$ wird das Geld schließlich in Ware verwandelt, die als Gebrauchswert dient. Das Geld ist also definitiv ausgegeben. In der umgekehrten Form $G - W - G$ gibt der Käufer dagegen Geld aus, um als Verkäufer Geld einzunehmen. Er wirft beim Kauf der Ware Geld in die Zirkulation, um es ihr wieder zu entziehen durch den Verkauf derselben Ware. Er entläßt das Geld nur mit der hinterlistigen Absicht, seiner wieder habhaft zu werden.

↓ The difference is so striking that these two types of spending money even have different names:

The money therefore is not spent, it is merely advanced.³

Es wird daher nur vorgeschossen.³

³ ‘When a thing is bought in order to be sold again, the sum employed is called money advanced; when it is bought not to be sold, it may be said to be expended’ (James Steuart, Works, etc., edited by General Sir James Steuart, his son,

³ „Wenn ein Ding gekauft wird, um wieder verkauft zu werden, nennt man die hierzu verwendete Summe vorgeschossenes Geld; wird es gekauft, um nicht wieder verkauft zu werden, so kann man sie als verausgabt bezeichnen.“ (Ja-

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London, 1805, Vol. 1, p. 274).

mes Steuart, „Works etc.“, edited by General Sir James Steuart, his son, Lond. 1805, v. 1, p. 274.)

↑ Since language has reserved two different words for the act $M - C$, according to whether it is part of $C - M - C$ or $M - C - M$, the inference from the practical actions in circulation, i.e., level [(P)], to individual motivations, i.e., level [(M)], simply consists in looking up the meaning of these two words. The existence of these two words confirms that Marx is justified in concluding from the practical actions in circulation to individual motivations.

Exam Question 633 Give examples for “advancing” and “expending” money. [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2007SP](#), [2004fa](#), [2003fa](#), [2001fa](#), [2000fa](#), [1999SP](#), [1997ut](#), [1997WI](#), [1996sp](#), [1995ut](#), [1995WI](#).

Question 634 Marx says that the purchase has a different character when it is part of $C - M - C$ than when it is part of $M - C - M$. How about the sale? Does it have a different character too?

Question 635 (a) If a private consumer first buys a car, and after two years trades it in for a new car, is that $C - M - C$ or $M - C - M$?

(b) If someone first buys a house, then after ten years decides to move and sells his house for a profit, is that $C - M - C$ or $M - C - M$?

(c) If an organic farmer on a small family farm raises wheat, then at the end of the year sells his crop and with the proceeds buys the materials to raise next year's wheat, is that $C - M - C$ or $M - C - M$?

(d) If someone puts a little money to the side from every paycheck and invests it in a special savings account, then in July withdraws all the money with interest and spends it on a vacation trip, is that $C - M - C$ or $M - C - M$? [Answer](#), [2013fa](#), [2012fa](#), [2010fa](#), [2009fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#), [1999SP](#), [1998WI](#), [1996ut](#), [1996sp](#).

Question 636 If the difference between $C - M - C$ and $M - C - M$ is real and as important as Marx says it is, it should show up in real life. Do you know real-life situations where this distinction is relevant? [2011fa](#).

[Result of $M - C - M$: The Reflux]

↓ Marx still argues on level [(P)], the practical individual actions in circulation, but instead of staying on the microeconomic level he takes a macroeconomic look at the circulation phenomena:

159:5/o In the form $C - M - C$, the same piece of money is displaced twice. The seller gets it from the buyer and pays it away to another seller. The whole process, which begins with the receipt of money in return for commodities, comes to an end with the relinquishing of money in return for commodities.

163:4 In der Form $W - G - W$ wechselt dasselbe Geldstück zweimal die Stelle. Der Verkäufer erhält es vom Käufer und zahlt es weg an einen andren Verkäufer. Der Gesamtprozeß, der mit der Einnahme von Geld für Ware beginnt, schließt ab mit der Weggabe von Geld für Ware.

↑ In chapter Three, p. [124:1/o](#), Marx emphasizes that the circulation process of the commodity $C - M - C$ “sweats out” money, that the commodities, as a byproduct of their form changes, push money through the economy—but that the money itself does not go in a circle.

4.1. [M–C–M: Acts in Circulation and Motivation of the Agents]

He calls it the “flow” of money, not its “circuit.” ↓ In $M - C - M$, the situation is different, because here money is no longer the mere mediator which is then relinquished again, but the purpose of the circulation.

In the form $M - C - M$ this process is inverted. Here it is not the piece of money which is displaced twice, but the commodity. The buyer takes it from the hands of the seller and passes it into the hands of another buyer. Whilst in the simple circulation of commodities the twofold displacement of the same piece of money effects its definitive transfer from one hand into another, here the twofold displacement of the same commodity effects the reflux of the money back to its initial point of departure.

Umgekehrt in der Form $G - W - G$. Nicht dasselbe Geldstück wechselt hier zweimal die Stelle, sondern dieselbe Ware. Der Käufer erhält sie aus der Hand des Verkäufers und gibt sie weg in die Hand eines andren Käufers. Wie in der einfachen Warenzirkulation der zweimalige Stellenwechsel desselben Geldstücks sein definitives Übergehn aus einer Hand in die andre bewirkt, so hier der zweimalige Stellenwechsel derselben Ware den Rückfluß des Geldes zu seinem ersten Ausgangspunkt.

↓ Marx dwells on this reflux because, despite the formulation that M–C–M “effects” (*bewirkt*) this reflux, this reflux is not something M–C–M can do by itself, but it is something on which M–C–M depends. $M - C - M$ is only possible if the overall circulation has such a structure that the money flows back to the person who has originally spent it. But at the present time, the investigation is not yet concrete enough to be able to follow the money and verify that it flows back to its origin. Marx will do this in *Capital II*. At the present time, Marx is apparently arguing: since $M - C - M$ is happening, we know that the overall circulation process must have a structure which provides for this reflux. The next paragraph give the following clarifications about this reflux:

- The question *whether* there is a reflux is different from the question of the *quantity* of the reflux.
- The fact that the money flows back is a “palpable difference,” one which one can see by a mere observation of the circulation phenomena without knowledge of the motivations of the agents or the social content of the surface forms.

Question 637 () *Is the reflux of money really a palpable difference? How do you verify empirically that it happens in M–C–M but not in C–M–C?*

160:1 This reflux of money to its starting-point does not depend on the commodity’s being sold for more than was paid for it. That only has a bearing on the amount of money which flows back. The phenomenon of reflux itself takes place as soon as the purchased commodity is resold, i.e., as soon as the cycle $M - C - M$ has been traversed in its entirety. This is, therefore, a palpable difference between the circulation of money as capital, and its circulation as mere money.

164:1 Der Rückfluß des Geldes zu seinem Ausgangspunkt hängt nicht davon ab, ob die Ware teurer verkauft wird, als sie gekauft war. Dieser Umstand beeinflusst nur die Größe der rückfließenden Geldsumme. Das Phänomen des Rückflusses selbst findet statt, sobald die gekaufte Ware wieder verkauft, also der Kreislauf $G - W - G$ vollständig beschrieben wird. Es ist dies also ein sinnlich wahrnehmbarer Unterschied zwischen der Zirkulation des Geldes als Kapital und seiner Zirkulation als bloßem Geld.

4. General Formula of Capital

↑ Due to this reflux, the agent engaged in $M - C - M$ never really gives up the money; like a yo-yo, the money keeps returning to the same person again and again. The different order of $M - C$ and $C - M$ has therefore spawned an important qualitative difference between $C - M - C$ and $M - C - M$. Marx's claim that this reflux is happening is an explanatory debt which he cannot pay off until much later. The sustained repetition of $M - C - M$ is only possible if the overall flow of money through the economy is such that the money indeed returns. Marx verifies this in volume II of *Capital*, and also in his study of banking capital in volume III. The macroeconomic "law of reflux" also played a big role in the monetary economics of his time. [Gre87], in the Palgrave dictionary, says that this law of reflux is a rehabilitation of the real bills doctrine. The reflux is known also today in Kalecki's aphorism "capitalists get what they spend, and workers spend what they get."

Question 639 In 208:1, Marx says that the circulation process $C - M - C$ "sweats money from every pore." Would he say the same thing about $M - C - M$, or would he characterize the flow of money generated by $M - C - M$ in a different way? 2010fa.

Question 640 Why does Marx place so much emphasis on the "reflux" of money implied in the form $M - C - M$? 2010fa, 2008SP, 2007SP.

[Repetition of $C - M - C$ Versus Continuation of $M - C - M$]

If one looks at $C - M - C$ and $M - C - M$ as continuous processes, this reflux makes an important difference.

- In $C - M - C$ there is no reflux, but there can be repetition.
- The reflux allows the person doing $M - C - M$ to continue this process indefinitely.

↓ Marx begins this comparison with a look at $C - M - C$:

160:2–3 The cycle $C - M - C$ is fully traversed when the money brought in by the sale of one commodity is withdrawn again by the purchase of another. If nevertheless a reflux of money to its starting-point occurs, this can happen only through a renewal or repetition of the whole course of the movement. If I sell a quarter of corn for £3, and with this £3 buy clothes, the money, so far as I am concerned, is irreversibly spent. I have nothing more to do with it. It belongs to the clothes merchant. If I now sell a second quarter of corn, money indeed flows back to me—not however as a result of the first transaction, but due to its repetition. The money again leaves me as soon as I complete this second transaction by a fresh purchase. In the cycle $C - M - C$, therefore, there is no connection between the expenditure of money and its reflux.

164:2 Der Kreislauf $W - G - W$ ist vollständig zurückgelegt, sobald der Verkauf einer Ware Geld bringt, welches der Kauf andrer Ware wieder entzieht. Erfolgt dennoch Rückfluß des Geldes zu seinem Ausgangspunkt, so nur durch die Erneuerung oder Wiederholung des ganzen Kursus. Wenn ich ein Quarter Korn verkaufe für 3 Pfd.St. und mit diesen 3 Pfd.St. Kleider kaufe, sind die 3 Pfd.St. für mich definitiv verausgabt. Ich habe nichts mehr mit ihnen zu schaffen. Sie sind des Kleiderhändlers. Verkaufe ich nun ein zweites Quarter Korn, so fließt Geld zu mir zurück, aber nicht infolge der ersten Transaktion, sondern nur infolge ihrer Wiederholung. Es entfernt sich wieder von mir, sobald ich die zweite Transaktion zu Ende führe und von neuem kaufe. In der Zirkulation $W - G - W$ hat also die Verausgabung des Geldes nichts mit seinem Rückfluß zu schaffen.

4.1. [M–C–M: Acts in Circulation and Motivation of the Agents]

The phrase “*hat nichts damit zu schaffen*” (“has nothing to do with”) is an unfortunate choice of words by Marx, because the word “*schaffen*” (which is meant here colloquially and has the connotation of “labor” and

“create” instead of simply “do”) suggests that the alternative rejected by Marx would be the outflow of money *creating* the conditions for its reflux. This is untrue in $C - M - C$ but it is also untrue in $M - C - M$: even in

$M - C - M$ the reflux is not facilitated by the expenditure. So where is the difference between $C - M - C$ and $M - C - M$? Marx’s next sentence will explain.

↓ The fact that the circular movement $C - M - C$ dies down after one turnover distinguishes it from $M - C - M$, a circular movement which does not die down:

In $M - C - M$, on the other hand, the very manner in which the money is expended relies on its reflux. Without this reflux, the operation fails, or the process is interrupted and incomplete, since its complementary final phase, the sale, is missing.

In $G - W - G$ dagegen ist der Rückfluß des Geldes durch die Art seiner Verausgabung selbst bedingt. Ohne diesen Rückfluß ist die Operation mißglückt oder der Prozeß unterbrochen und noch nicht fertig, weil seine zweite Phase, der den Kauf ergänzende und abschließende Verkauf, fehlt.

The word translated here with “relies” is the German word “*bedingt*”—a more literal translation would be “presupposes.” A presupposes B means: A can happen only if B

happens. This is not meant as a condition in every single case: it is certainly possible that individual capitalists advance their money without ever getting it back. Presumably Marx means to say

here: Had the macro structure of the flow of money not allowed for the reflux of money, then $M - C - M$ could never have evolved as a socially common way of doing things.

4.1.d. [Purposes of C–M–C and M–C–M]

This detailed comparative analysis of the circulation processes $C - M - C$ and $M - C - M$ on level [(P)] enables us to infer the purposes of the agents, which is level [(M)]. Since Marx and his readers live in the society investigated here, he can draw on the common knowledge about what goes on in the heads of the persons performing $C - M - C$ and $M - C - M$. ↓ The purposes of the agents performing $C - M - C$ are easy to see:

160:4 The circuit $C - M - C$ issues from the extreme constituted by one commodity, and concludes with the extreme constituted by another commodity, which falls out of circulation and into consumption. Consumption, the satisfaction of needs, in short use-value, is therefore the final purpose of this circuit.

164:3 Der Kreislauf $W - G - W$ geht aus von dem Extrem einer Ware und schließt ab mit dem Extrem einer andren Ware, die aus der Zirkulation heraus und der Konsumtion anheimfällt. Konsumtion, Befriedigung von Bedürfnissen, mit einem Wort, Gebrauchswert ist daher sein Endzweck.

↑ Marx infers the purposes of $C - M - C$ and $M - C - M$ from comparing the beginning point with the end point—because this tells us the effect of this transaction for the main agent. $C - M - C$ begins with a commodity, and ends with a commodity that has a different use-value. Therefore its purpose must be use-value. ↓ $M - C - M$ by contrast goes from money to money. By the same logic we can conclude that its purpose is exchange-value.

The circuit $M - C - M$, however, issues from the extreme of money and finally returns to that same extreme. Its driving motive and determining purpose is therefore exchange-value itself.

Der Kreislauf $G - W - G$ geht dagegen aus von dem Extrem des Geldes und kehrt schließlich zurück zu demselben Extrem. Sein treibendes Motiv und bestimmender Zweck ist daher der Tauschwert selbst.

4. General Formula of Capital

↑ In fact, we know that the purpose of the individual performing $M - C - M$ can only be to get *more* exchange-value than he previously had. But since we are not looking at quantities right now, but only the qualitative aspect of the movement, we can only say here that the concern of the transactors revolves around the exchange-value, not the use-value of the product.

4.1.e. [The Social Content Behind $C - M - C$ and $M - C - M$]

Until now, Marx looked at the circulation phenomena, i.e., level [(P)] as defined above, and the purposes of the agents, i.e., level [(M)]. Now, he goes down to level [(D)] of his investigation and draws conclusions about the social content. This social content is not dependent on the purposes themselves, but on what the agents *do* while pursuing their purposes, not on every individual action but on those they do in unison, those actions which resonate with each other. These resonances are systematized in level [(F)], in the form side of the individual transactions. Marx's point of departure, from which he infers the social content of the movements, is therefore the form side. ↓ Marx first explores the commodity forms in $C - M - C$:

160:5/o In the simple circulation of commodities the two extremes have the same economic form. They are both commodities, and commodities of equal value.

164:4/o In der einfachen Warenzirkulation haben beide Extreme dieselbe ökonomische Form. Sie sind beide Ware. Sie sind auch Waren von derselben Wertgröße.

↑ Of course, individuals not only have to acquire the use-values they need, but in the process they also wish to get as good a bargain as possible. But since everybody has this goal, competition sees to it that on average the commodities which change hands have equal values. Bargain hunters do not resonate with each other but cancel each other out. ↓ But the use-values are always different, and necessarily so, since equal use-values cannot be exchanged against each other:

But they are qualitatively different use-values, as for example corn and clothes.

Aber sie sind qualitativ verschiedene Gebrauchswerte, z.B. Korn und Kleider.

↑ Marx slips here from level [(F)], the form side, back into level [(P)], the practical actions of the individuals. Had he stayed on the form side, he would have said that the commodity changes from a use-value for others to a use-value for its owner. This is what Marx should have written here, because this is what allows him to take the next step: ↓ The social content of the movement is the social metabolism of the products of labor:

The exchange of products, the metabolism between the various physical objects in which social labor represents itself, constitutes here the content of the movement.

Der Produktaustausch, der Wechsel der verschiedenen Stoffe, worin sich die gesellschaftliche Arbeit darstellt, bildet hier den Inhalt der Bewegung.

↑ The social function which the agents fulfill while satisfying their private needs through commodity circulation $C - M - C$ is the transfer of the goods from those who produce them to those who use them, see also 579:1. This social function has nothing to do with value. ↓ Next Marx looks at the content of $M - C - M$:

It is otherwise in the cycle $M - C - M$. At first sight it seems to lack any content, to be tautological. Both extremes have the same economic form. Instead of being qualitatively different use-values they are both money—precisely the transmuted form of

Anders in der Zirkulation $G - W - G$. Sie scheint auf den ersten Blick inhaltslos, weil tautologisch. Beide Extreme haben dieselbe ökonomische Form. Sie sind beide Geld, also keine qualitativ unterschiedene Gebrauchswerte, denn Geld ist eben die

commodities in which their particular use-values are extinguished. To exchange £100 for cotton, and then to exchange this same cotton again for £100, is merely a round-about way of exchanging money for money, the same for the same, and seems to be an operation as purposeless as it is absurd.⁴

verwandelte Gestalt der Waren, worin ihre besondern Gebrauchswerte ausgelöscht sind. Erst 100 Pfd.St. gegen Baumwolle und dann wieder dieselbe Baumwolle gegen 100 Pfd.St. austauschen, also auf einem Umweg Geld gegen Geld, dasselbe gegen dasselbe, scheint eine ebenso zwecklose als abgeschmackte Operation.⁴

↑ $M - C - M$ doesn't seem to have a social content, since the transaction ends up at the same place where it began. What social function can this have? As in several other instances before, we have arrived at an impasse.

↓ Footnote 4 documents the discussion of the social benefits (as opposed to the private advantage) of $M - C - M$ in the literature:

⁴ 'One does not exchange money for money', exclaims Mercier de la Rivière to the mercantilists [MdlR46, p. 486]. In a work which professes to deal with 'trade' and 'speculation' there occurs the following: 'All trade consists in the exchange of things of different kinds; and the advantage' (to the merchant?) 'arises out of this difference. To exchange a pound of bread against a pound of bread ... would be attended with no advantage; ... hence trade is advantageously contrasted with gambling, which consists in a mere exchange of money for money' (Th. Corbet, *An Inquiry into the Causes and Modes of the Wealth of Individuals; or the Principles of Trade and Speculation Explained*, London, 1841, p. 5). Although Corbet overlooks that $M - M$, the exchange of money for money, is the characteristic form of circulation, not only of merchants' capital, but of all capital, he at least acknowledges that this form is common to gambling and to one species of trade, namely speculation. Then, however, MacCulloch comes on the scene, and asserts that to buy in order to sell is to speculate, and thus the distinction between speculation and trade vanishes. 'Every transaction in which an individual buys produce in order to sell it again is in fact a speculation' (MacCulloch, *A Dictionary, Practical etc., of Commerce*, London, 1847, p. 1009). With much more naïveté, Pinto, the Pindar of the Amsterdam Stock Exchange, remarks: 'Trade is a game' (this phrase is borrowed from Locke) 'and nothing can be won from beggars. If one won everything from everybody for long, it would be necessary to give back voluntarily the greater part of the profit in order to begin the game again' (Pinto, *Traité de la circulation et du crédit*, Amsterdam, 1771, p. 231).

⁴ „Man tauscht nicht Geld gegen Geld aus,“ ruft Mercier de la Rivière den Mercantilisten zu. [MdlR46, p. 486]. In einem Werke, welches ex professo vom „Handel“ und der „Spekulation“ handelt, liest man: „Aller Handel besteht im Austausch von Dingen verschiedner Art; und der Vorteil“ (für den Kaufmann?) „entspringt eben aus dieser Verschiedenheit. Ein Pfund Brot gegen ein Pfund Brot austauschen wäre ohne allen Vorteil ... daher der vorteilhafte Kontrast zwischen Handel und Spiel, welches nur Austausch von Geld gegen Geld ist.“ (Th. Corbet, „An Inquiry into the Causes and Modes of the Wealth of Individuals; or the Principles of Trade and Speculation explained“, London 1841, p. 5.) Obgleich Corbet nicht sieht, daß $G - G$, Geld gegen Geld austauschen, die charakteristische Zirkulationsform, nicht nur des Handelskapitals, sondern alles Kapitals ist, gibt er wenigstens zu, daß diese Form einer Art des Handels, der Spekulation, mit dem Spiel gemein sei, aber dann kommt MacCulloch und findet, daß Kaufen, um zu verkaufen, Spekulieren ist, und der Unterschied zwischen Spekulation und Handel also wegfällt. „Jedes Geschäft, bei dem eine Person ein Erzeugnis kauft, um es wieder zu verkaufen, ist tatsächlich eine Spekulation.“ (MacCulloch, „A Dictionary, practical etc. of Commerce“, London 1847, p. 1009.) Ungleich naiver Pinto, der Pindar der Amsterdamer Börse: „Der Handel ist ein Spiel“ (dieser Satz entlehnt aus Locke), „und an Bettlern kann man nichts gewinnen. Wenn man lange Zeit hindurch allen alles abgenommen hätte, so müßte man in gütlichem Übereinkommen den größten Teil des Gewinns wieder zurückgeben, um das Spiel von neuem anzufangen.“ (Pinto, „Traité de la Circulation et du Crédit“, Amsterdam 1771, p. 231.)

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↑ Overall, the conclusions are the same as that drawn by Marx in the main text: $M - C - M$ is speculation or a game, i.e., it does not seem to serve a useful social purpose.

4.2. [The Definition of Capital]

$M - C - M$ is much too prevalent *not* to have a social content (or to merely have the content of gambling, as suggested in footnote 4). The resolution of this impasse gives us the definition of capital.

4.2.a. [Not $M - C - M$ but $M - C - M'$]

In order to prepare for the resolution of this impasse, Marx takes the quantity of value into consideration. While Marx was investigating the form of the circulation, the quantity would have been distracting and had to be disregarded, but in order to get down to the content on level [(D)], it turns out that Marx not only needs the form but also the quantity. Marx has already remarked in 158:4/o on level [(M)] that individuals would never engage in $M - C - M$ would they not get more money back than they spend. These quantitative differences must also be considered if one is interested in the overall social impact of the activity of many capitalists, i.e., in level [(D)]:

One sum of money is distinguishable from another only by its quantity. The process $M - C - M$ therefore owes its content not to any qualitative difference between its extremes, for they are both money, but solely to their quantitative difference. More money is withdrawn from circulation at the end than was thrown into it at the beginning. The cotton originally bought for £100 is for example re-sold at £100 + £10, i.e., £110. The complete form of this process is therefore $M - C - M'$, where $M' = M + \Delta M$, i.e., the original sum advanced plus an increment.

Eine Geldsumme kann sich von der andren Geldsumme überhaupt nur durch ihre Größe unterscheiden. Der Prozeß $G - W - G$ schuldet seinen Inhalt daher keinem qualitativen Unterschied seiner Extreme, denn sie sind beide Geld, sondern nur ihrer quantitativen Verschiedenheit. Schließlich wird der Zirkulation mehr Geld entzogen, als anfangs hineingeworfen ward. Die zu 100 Pfd.St. gekaufte Baumwolle wird z.B. wieder verkauft zu 100 + 10 Pfd.St. oder 110 Pfd. St. Die vollständige Form dieses Prozesses ist daher $G - W - G'$, wo $G' = G + \Delta G$, d.h. gleich der ursprünglich vorgeschossenen Geldsumme plus einem Inkrement.

By “complete form of this process” Marx means the form in which the quantitative aspect is not disregarded. Marx introduces here what we call level [(G)]. The word “complete” is also used in 166:2. Earlier in the chapter we have made abstraction of the quantities involved, in order to see the characteristic activities of the agents performing these circulation acts. But now we discover that we cannot keep the quantity separate from the qualitative aspects of the form if we want to understand the social relations which make these circulation acts possible and necessary. The abstraction from quantities, which served us well earlier, has become a hindrance at the present stage of the investigation.

Question 643 In 248:2 Marx argues that one should disregard the quantitative difference, i.e., only look at the form $M - C - M$ without paying attention to quantitative difference between the second M and the first, while two pages later, in 250:4/oo, Marx says that it is important to look at the quantities. What made him change his mind? 2012fa.

4.2. [The Definition of Capital]

In his second attempt, which will follow shortly, Marx will therefore search for the social content behind $M - C - M'$, not $M - C - M$. Before this renewed search, Marx defines his terminology for one of the concepts on level [(G)]:

This increment or excess over the original value I call—surplus-value.

Dieses Inkrement oder den Überschuß über den ursprünglichen Wert nenne ich—Mehrwert (surplus-value).

↑ The existence of a name for this quantitative difference is additional confirmation that this quantitative difference matters. ↓ The full description of the circulation of capital is therefore:

The value originally advanced, therefore, not only remains intact while in circulation, but it increases its magnitude, adds to itself a surplus-value, or valorizes itself. And this movement converts this value into capital.

Der ursprünglich vorgeschobne Wert erhält sich daher nicht nur in der Zirkulation, sondern in ihr verändert er seine Wertgröße, setzt einen Mehrwert zu oder verwertet sich. Und diese Bewegung verwandelt ihn in Kapital.

We have arrived at a very general definition of capital: capital is value in motion. Marx is taking his time to unpack what this means. He makes several points:

(a) Value differences in $C - M - C$ are possible as well but here they are irrelevant.

(b) In $M - C - M'$, the end is qualitatively equal to the beginning but it is bigger. This leads to an insatiable spiral.

(c) due to the “reflux,” the same individual (the capitalist) can perform this movement over and over again. Since the capitalist identifies with the unbounded increase in value and makes it his personal motive, it becomes an especially powerful social force.

Question 644 What is capital? 2013fa, 2011fa, 2007fa, 2003fa, 2001fa, 2000fa, 1997ut, 1997sp, 1997WI, 1996ut, 1996sp, 1995WI.

↓ (a) If we need to look at the quantities in order to understand the social content of $M - C - M'$, does this mean we should also have looked at the quantities involved in $C - M - C$? The next paragraph explains why this is not necessary. For $C - M - C$, level [(F)] is sufficient, no need to go to level [(G)]:

162:1 Of course, it is also possible that in $C - M - C$ the two extremes C and C , say corn and clothes, may represent quantitatively different magnitudes of value. The peasant may sell his corn above its value, or may buy the clothes at less than their value. He may, on the other hand, be cheated by the clothes merchant. Yet, for this particular form of circulation, such differences in value are purely accidental.

165:1/o Es ist zwar auch möglich, daß in $W - G - W$ die beiden Extreme, W , W , z.B. Korn und Kleider, quantitativ verschiedene Wertgrößen sind. Der Bauer kann sein Korn über dem Wert verkaufen oder die Kleider unter ihrem Wert kaufen. Solche Wertverschiedenheit bleibt jedoch für diese Zirkulationsform selbst rein zufällig.

↓ Marx gives two different reasons why for $C - M - C$, value differences between the first and second C are not relevant:

The fact that the corn and the clothes are equivalents does not deprive the process of all sense and meaning, as it does in $M - C - M$. The equality of their values is rather the

Sinn und Verstand verliert sie nicht schier, wie der Prozeß $G - W - G$, wenn die beiden Extreme, Korn und Kleider z.B., Äquivalente sind. Ihr Gleichwert ist hier vielmehr Be-

4. General Formula of Capital

condition under which it can take its normal course.

dingung des normalen Verlaufs.

↑ First reason: While a capitalist who does $M - C - M'$ with $M = M'$ would have been better off not traversing the circuit at all, a $C - M - C'$ in which C' has a different value than C may still be necessary because of the use-value of C' . Second reason: Although it is possible that the values of the two extremes in $C - M - C$ have different magnitudes, this would be only an accident, an irregularity, which will be ironed out over time in the normal course of things. Because of this, there is no need to go to level [(G)], i.e., to look at the quantitative differences in the form $C - M - C$, in order to uncover its social content.

Question 646 *In the exchange process, it is clearly the objective of the traders to get as much in return for their commodity as possible. Likewise, it is clearly the objective of the capitalists to get as much return on their capital as possible. Nevertheless Marx analyzes the exchange as an equalization and abstracts from the quantitative differences, while his analysis of the circuit of capital explicitly takes the quantitative differences into consideration. Is this unequal methodology justified, or does it bias Marx's results?* 2013fa, 2012fa.

4.2.b. [C–M–C and M–C–M' as Ongoing Processes]

(b) After revisiting the form in the sphere of circulation in order to introduce the quantitative dimension into it, i.e., after looking at it on level [(G)], Marx investigates once more the purposes of the agents, which is level [(M)], and the social content behind both $C - M - C$ and $M - C - M'$, which is level [(D)]. Since he brought the quantity in, i.e., since he expanded level [(F)] to become level [(G)], level [(D)] is expanded too: Marx is not only interested in the quality of the content driving these processes but also in its *measure*. In addition, Marx makes another important change compared with his first attempt: he looks at these processes not as one-time processes but as repeated processes.

162:2/o The repetition or renewal of the process of selling in order to buy finds its measure and its goal (as does the process itself) in a final purpose which lies outside it, namely consumption, the satisfaction of certain specific needs.

166:1/o Die Wiederholung oder Erneuerung des Verkaufs, um zu kaufen, findet, wie dieser Prozeß selbst, Maß und Ziel an einem außer ihm liegenden Endzwecke, der Konsumtion, der Befriedigung bestimmter Bedürfnisse.

↑ The repetition of $C - M - C$ does not alter the conclusion already obtained in 160:5/o. It finds its measure in the satisfaction of the needs, which are themselves regenerated over time. ↓ But while $M - C - M$ without quantitative difference is an absurdity, $M - C - M'$ with a quantitative but not a qualitative difference has only itself as measure and is therefore *insatiable*. But I am getting ahead of Marx here. The move from absurdity to curse takes several steps:

In buying in order to sell, by contrast, the end and the beginning are the same, money or exchange-value. Already because of this, the movement is endless.

Im Kauf für den Verkauf dagegen sind Anfang und Ende dasselbe, Geld, Tauschwert, und schon dadurch ist die Bewegung endlos.

↑ Marx says here “endless” (*endlos*), not yet “insatiable” (*maßlos*). The movement is endless because beginning and end point coincide. This is a *condition* for the insatiability of capital, but the insatiability itself is driven by other mechanisms, which will be developed later. ↓ After saying that beginning and end coincide, Marx says in the very next sentence

that they differ after all—because now we are on level ([G]). This is the negation, from which Marx goes immediately to the negation of the negation:

Certainly, M has become $M + \Delta M$, £100 turned into £100 + £10. But, considered qualitatively, £110 is the same as £100, namely money; while, from the quantitative point of view, £110 is, like £100, a sum of definite and limited value.

Allerdings ist aus G , $G + \Delta G$ geworden, aus den 100 Pfd.St., 100 + 10. Aber bloß qualitativ betrachtet, sind 110 Pfd.St. dasselbe wie 100 Pfd.St., nämlich Geld. Und quantitativ betrachtet, sind 110 Pfd.St. eine beschränkte Wertsumme wie 100 Pfd.St.

↑ Although there is a difference, the difference between M and M' is *slight*. Both have the same quality, they are money, and quantitatively both are limited—this is a brief allusion to the curse of money which will be made more explicit in the third sentence after this. ↓ Since M' qualitatively is not different from M and therefore must also do the same thing as M , namely, re-enter the process. Marx argues this by ruling out possible alternative uses of this reflux of capital:

If the £110 were spent as money they would fall out of character, they would cease to be capital. Withdrawn from circulation, they petrify into a hoard, and even if they were to endure in this position until the Last Judgment, not a single farthing would accrue to them.

Würden die 110 Pfd.St. als Geld verausgabt, so fielen sie aus ihrer Rolle. Sie hörten auf, Kapital zu sein. Der Zirkulation entzogen, versteinern sie zum Schatz, und kein Farthing wächst ihnen an, ob sie bis zum Jüngsten Tage fortlagern.

↑ Marx rules out two possible uses of M' , either spending it, or hoarding it miser-like as in 144:1. In the first alternative, money leaves the circuit $M - C - M'$ and enters $C - M - C$, and in the second it is unable to achieve any further increments M' after the original $M - C - M'$. ↓ But since we know from experience that $M - C - M'$ is an ongoing and expanding process, we know that at least part of the surplus-value is re-entering the circuit.

As long as, therefore, valorization of value is the purpose, £110 have the same need for valorization as £100. Both are bounded expressions of exchange-value, and therefore both have the same calling, to approach, by quantitative expansion, as near as possible to absolute wealth.

Handelt es sich also einmal um Verwertung des Werts, so besteht dasselbe Bedürfnis für die Verwertung von 110 Pfd.St. wie für die von 100 Pfd.St., da beide beschränkte Ausdrücke des Tauscherts sind, beide also denselben Beruf haben, sich dem Reichtum schlechthin durch Größenausdehnung anzunähern.

↑ Valorization is here the activity of value which is in motion, i.e., the activity by which value adds surplus-value to itself.

Question 648 *Is it right to say that $M - C - M$ is incomplete because it ends with money, and the money is nothing by itself but must be spent?* 2010fa, 2009fa, 2007fa, 2007SP, 2005fa, 2004fa.

Question 651 *How does Marx's discussion of $M - C - M$ in chapter Four of Capital 1 differ from his discussion of the circuits of capital in the beginning chapters of Capital 2?*

4.2.c. [Digression: The Curse of Money]

This last paragraph contained a very brief introduction of what we are calling here, in these Annotations, the “curse of money,” namely, the need for self-expansion which is implied

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in the nature of money. The “curse” was also briefly mentioned in chapter Three, [143:1/o](#), during the discussion of the miser. Since it is an important subject I will bring here a passage from *Grundrisse*, 200:2, where Marx discusses it in more detail.

↓ First Marx’s argument is very similar to the argument given here in chapter Four of *Capital*, in the first sentence of [160:5/o](#):

We have already seen, in the case of money, how value, after assuming the independent form of money—or the general form of wealth—is capable of no other motion than a quantitative one; to increase itself.

Wir haben schon gesehn beim Geld, wie der als solches verselbständigte Wert—oder die allgemeine Form des Reichtums—keiner andren Bewegung fähig ist, als einer quantitativen; sich zu vermehren.

↓ But then Marx goes on to explain that besides being the only *possibility*, this quantitative expansion is also a *necessity* rooted in the money form:

According to its concept, money is the quintessence of all use-values; but since it is always only a given amount of money (here, capital), its quantitative boundedness stands in contradiction to its quality. The constant drive beyond its own boundedness is therefore inherent in its nature.

Seinem Begriff nach ist er der Inbegriff aller Gebrauchswerte; aber als immer nur ein bestimmtes Quantum Geld (hier Kapital) ist seine quantitative Schranke im Widerspruch zu seiner Qualität. Es liegt daher in seiner Natur beständig über seine eigne Schranke hinauszutreiben.

↑ In other words: qualitatively, money gives access to all use-values, i.e., qualitatively it is universal. This qualitative universality comes in conflict with its quantitative boundedness, since money always only exists as a finite (Marx would say “bounded”) sum of money. This conflict tries to come to a resolution by quantitative expansion. The drive for quantitative expansion belongs therefore to the nature of money. This is often not recognized. A few sentences after the above quotes, in the same long paragraph in *Grundrisse*, Marx writes:

It is damned difficult for Messrs the economists to make the theoretical transition from the self-preservation of capital to its multiplication, not merely as a contingent feature or a result, but belonging its fundamental character.

Den Herren Ökonomen wird es verdammt schwer, theoretisch fortzukommen von der Selbsterhaltung des Werts im Kapital zu seiner Vervielfältigung; nämlich diese in seiner Grundbestimmung, nicht nur als Akzidens oder nur als Resultat.

There is evidence that Marx was thinking along the same lines when he wrote *Capital*. Chapter Three, [143:1/o](#), contains a similar allusion as part of the discussion of the miser, which applies not only to the miser but also to the capitalist. Also the last sentence which we just read, here in chapter Four, namely [162:2/o](#), gives a shorthand version of the argument. It reads more like a brief allusion to an argument developed elsewhere, than such an argument itself. Marx seems unaware that he never developed this argument in sufficient detail in *Capital*. Marx is writing as if something corresponding to the above *Grundrisse* passage had been included somewhere in *Capital*, while in fact it never was.

Question 652 Why does monetary wealth have the urge to multiply itself? (Do not describe at this point how it does it but why in modern society the unlimited accumulation of wealth is such an overriding and powerful objective.) [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2003fa](#), [2002fa](#), [2001fa](#), [1999SP](#), [1998WI](#), [1997WI](#), [1996sp](#), [1995ut](#).

Question 653 Bring everyday examples illustrating the drive for self-expansion inherent in the nature of money. *Answer*, [2008fa](#), [2004fa](#), [2003fa](#), [2001fa](#), [1999SP](#), [1997ut](#), [1995ut](#).

4.2.d. [The Measure of $M-C-M'$]

The curse of money is a driving force on level [(M)], i.e., it motivates the individual economic agents. The agents who perform $M-C-M'$ can never get enough—because the increased amount of money suffers from the same contradiction as the original amount: both would be able to buy *everything* were they not eventually exhausted. Through the never-ending expansion of the magnitude of his fortune, the capitalist tries to capture the infinite variety of use-values in which value can represent itself.

After arguing that there is no essential difference between M and M' (this is Hegel's definition of a quantitative difference, it is a difference with nothing to distinguish the differing elements), the next step of the argument is that the receipt of M' automatically puts the capitalist in the position to begin the circle again. This is not the case with $C-M-C$. The second commodity C “falls out of circulation” (160:4), and in order to restart the process one has to come up with a new first commodity C . In *Grundrisse*, Marx writes that $C-M-C$ is like a fire which can only keep burning if fuel is continually added to it from the outside. $M-C-M'$ might perhaps be compared with a nuclear breeder reactor that generates its own fuel.

↓ The argument begins with the observation that the absence of a difference between M and M' is not only relevant on level [(M)] but already on level [(P)], in their practical activity. Also in the practical turnover, this difference does not persist:

For a moment, it is true, the value originally advanced, the £100, distinguishes itself from the surplus-value of £10 added to it during circulation. But this distinction dissipates quickly again. At the end of the process, we do not receive on the one hand the original £100, and on the other surplus-value of £10. What we receive is rather a value of £110, which is exactly in the same form, fit for commencing the valorization process, as the original £100. At the end of the movement, money re-emerges in order to begin it again.⁵

Zwar unterscheidet sich für einen Augenblick der ursprünglich vorgeschossene Wert 100 Pfd.St. von dem in der Zirkulation ihm zuwachsenden Mehrwert von 10 Pfd.St., aber dieser Unterschied zerfließt sofort wieder. Es kommt am Ende des Prozesses nicht auf der einen Seite der Originalwert von 100 Pfd.St. und auf der andren Seite der Mehrwert von 10 Pfd.St. heraus. Was herauskommt, ist ein Wert von 110 Pfd.St., der sich ganz in derselben entsprechenden Form befindet, um den Verwertungsprozeß zu beginnen, wie die ursprünglichen 100 Pfd.St. Geld kommt am Ende der Bewegung wieder als ihr Anfang heraus.⁵

⁵ ‘Capital is divided ... into the original capital and profit—the increment of capital ... although practice itself immediately lumps this gain together with capital and sets it in motion with it’ (F. Engels, *Umriss zu einer Kritik der Nationalökonomie*, in *Deutsch-Französische Jahrbücher*, edited by Arnold Ruge and Karl Marx, Paris, 1844, p. 99)

⁵ „Das Kapital teilt sich ... in das ursprüngliche Kapital und den Gewinn, den Zuwachs des Kapitals ... obwohl die Praxis selbst diesen Gewinn sogleich wieder zum Kapital schlägt und mit diesem in Fluß setzt.“ F. Engels, „Umriss zu einer Kritik der Nationalökonomie“, in „Deutsch-Französische Jahrbücher“, herausgegeben von Arnold Ruge and Karl Marx, Paris 1844, p. 99.

↑ Footnote 5 quotes Engels that “practice itself” lumps original capital and profit together and renews the motion. ↓ The renewal of the process does not require additional initiative or intervention. It is automatic.

The final result of every single cycle of pur- | Das Ende jedes einzelnen Kreislaufs, worin

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chasing for the purpose of consequent sale constitutes therefore, by itself, the starting-point of a new cycle.

↓ The last two sentences of this paragraph take another shot at the transition from the motives of the individuals [(F)] to the general social content of their activity [(D)].

The simple circulation of commodities—selling in order to buy—is a means to a final goal which lies outside circulation, namely the appropriation of use-values, the satisfaction of needs. As against this, the circulation of money as capital is an end in itself, for the valorization of value takes place only within this constantly renewed movement.

sich der Kauf für den Verkauf vollzieht, bildet daher von selbst den Anfang eines neuen Kreislaufs.

Die einfache Warenzirkulation—der Verkauf für den Kauf—dient zum Mittel für einen außerhalb der Zirkulation liegenden Endzweck, die Aneignung von Gebrauchswerten, die Befriedigung von Bedürfnissen. Die Zirkulation des Geldes als Kapital ist dagegen Selbstzweck, denn die Verwertung des Werts existiert nur innerhalb dieser stets erneuerten Bewegung.

↑ Instead of having no purpose at all, as in 160:5/o, the movement M–C–M' now has itself as purpose.

The movement of capital is therefore insatiable.⁶ Die Bewegung des Kapitals ist daher maßlos.⁶

Fowkes's "limitless" is not a good translation for "*maßlos*."
Moore-Aveling's "has no limits" is

a little better. "Insatiable" is really an over-interpretation, perhaps it would be better to say here "without measure."

↑ The last sentence echoes the first sentence of this paragraph, but from "endless" (without an end point) Marx proceeded now to "without measure." Unlike C–M–C, the circulation of capital M–C–M' is not subordinated to an exterior purpose and therefore does not receive a measure from this purpose. "Without measure" is often taken as a euphemism for insatiable.

↓ Footnote 6 documents that Aristotle had said exactly the same thing and had seen it as insatiable:

⁶ Aristotle contrasts economics with 'chrematistics'. He starts with economics. So far as it is the art of acquisition, it is limited to procuring the articles necessary to existence and useful either to a household or the state. 'True wealth (ὁ ἀλθιδινὸς πλοῦτος) consists of such use-values; for the amount of property which is needed for a good life is not unlimited ... There is, however, a second mode of acquiring things, to which we may by preference and with correctness give the name of chrematistics, and in this case there appear to be no limits to riches and property.

⁶ Aristoteles stellt der Chrematistik die Ökonomik entgegen. Er geht von der Ökonomik aus. Soweit sie Erwerbskunst, beschränkt sie sich auf die Verschaffung der zum Leben notwendigen und für das Haus oder den Staat nützlichen Güter. „Der wahre Reichtum (ὁ ἀλθιδινὸς πλοῦτος) besteht aus solchen Gebrauchswerten; denn das zum guten Leben genügende Maß dieser Art von Besitz ist nicht unbegrenzt. Es gibt aber eine zweite Erwerbskunst, die vorzugsweise und mit Recht Chrematistik heißt, infolge deren keine Grenze des Reichtums und Besitzes zu existieren scheint.

↑ This is a summary of Aristotle. ↓ The footnote continues with a more detailed discussion of Aristotle's theory:

^{6 ctd} Trade ("ἡ καπηλική" is literally retail trade, and Aristotle chooses this form because use-values predominate in it) does not in its nature belong to chrematistics, for here the exchange only has reference to what is necessary for (the buyer or the seller) themselves.' Therefore, as he goes on to show, the original form

^{6 ctd} Der Warenhandel („ἡ καπηλική“ heißt wörtlich Kramhandel, und Aristoteles nimmt diese Form, weil in ihr der Gebrauchswert vorherrscht) gehört von Natur nicht zur Chrematistik, denn hier bezieht sich der Austausch nur auf das für sie selbst (Käufer und Verkäufer) Nötige.“ Daher, entwickelt er weiter, war auch

of trade was barter, but with the extension of the latter there arose the necessity for money. With the discovery of money, barter of necessity developed into *καπηλική*, into trading in commodities, and this again, in contradiction with its original tendency, grew into *chrematistics*, the art of making money. Now *chrematistics* can be distinguished from economics in that ‘for *chrematistics*, circulation is the source of riches (*ποιητική χρημάτων* ... *διὰ χρημάτων μεταβολῆς*). And it appears to revolve around money, for money is the beginning and the end of this kind of exchange (*τὸ γὰρ νόμισμα στοιχεῖον καὶ πέρας τῆς ἀλλαγῆς ἐστίν*). Therefore also riches, such as *chrematistics* strives for, are unlimited. Just as every art which is not a means to an end, but an end in itself, has no limit to its aims, because it seeks constantly to approach nearer and nearer to that end, while those arts which pursue means to an end are not boundless, since the goal itself imposes a limit on them, so with *chrematistics* there are no bounds to its aims, these aims being absolute wealth. Economics, unlike *chrematistics*, has a limit ... for the object of the former is something different from money, of the latter the augmentation of money ... By confusing these two forms, which overlap each other, some people have been led to look upon the preservation and increase of money *ad infinitum* as the final goal of economics.’ (Aristotle, *De Republica*, edit. Bekker, lib. I, c. 8, 9, *passim*.)

die ursprüngliche Form des Warenhandels der Tauschhandel, aber mit seiner Ausdehnung entstand notwendig das Geld. Mit der Erfindung des Geldes mußte sich der Tauschhandel notwendig zur *καπηλική*, zum Warenhandel entwickeln, und dieser, im Widerspruch zu seiner ursprünglichen Tendenz, bildete sich zur *Chrematistik* aus, zur Kunst, Geld zu machen. Die *Chrematistik* nun unterscheidet sich von der *Ökonomik* dadurch, daß „für sie die Zirkulation die Quelle des Reichtums ist (*ποιητική χρημάτων* ... *διὰ χρημάτων μεταβολῆς*). Und um das Geld scheint sie sich zu drehen, denn das Geld ist der Anfang und das Ende dieser Art von Austausch (*τὸ γὰρ νόμισμα στοιχεῖον καὶ πέρας τῆς ἀλλαγῆς ἐστίν*). Daher ist auch der Reichtum, wie ihn die *Chrematistik* anstrebt, unbegrenzt. Wie nämlich jede Kunst, der ihr Ziel nicht als Mittel, sondern als letzter Endzweck gilt, unbegrenzt in ihrem Streben ist, denn sie sucht sich ihm stets mehr zu nähern, während die Künste, die nur Mittel zum Zwecke verfolgen, nicht unbegrenzt sind, da der Zweck selbst ihnen die Grenze setzt, so gibt es auch für diese *Chrematistik* keine Schranke ihres Ziels, sondern ihr Ziel ist absolute Bereicherung. Die *Ökonomik*, nicht die *Chrematistik*, hat eine Grenze ... die erstere bezweckt ein vom Gelde selbst Verschiedenes, die andere seine Vermehrung ... Die Verwechslung beider Formen, die ineinander überspielen, veranlaßt einige, die Erhaltung und Vermehrung des Geldes ins Unendliche als Endziel der *Ökonomik* zu betrachten.“ (Aristoteles, „*De Rep.*“, edit. Bekker, lib. I, c. 8 und 9 *passim*.)

We still haven’t arrived yet at a full formulation of the social forces underlying $M - C - M'$. In his earlier attempt in 160:5/o Marx had come to the conclusion that it has *no* social purpose at all—but this was before looking at the quantitative differences. With the quantitative differences taken into consideration, the result is that it has *itself* as purpose. In $M - C - M'$, the social relation of value has come into motion, as Marx will say in 164:1/o, it is the valorization of value, value grows, it turns itself into more value. On the other hand, due to the reflux of money in $M - C - M'$, the individuals who are engaged in $M - C - M'$ remain engaged in it. These are the capitalists. They are motivated to pursue $M - C - M'$, because the curse of money has them under its spell. Marx therefore takes a look at the capitalists, and will only afterwards say more about the social forces for which the capitalists are the instruments.

4.3. [The Capitalist]

(c) Because of the reflux discussed above, it is easy for someone who is engaged in $M - C - M$ today to do it again tomorrow. This social form therefore does not define a fleeting

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character mask like being buyer or seller, see 94:4/o. Everyone in society is sometimes buyer and sometimes seller, but the role of performing $M - C - M$ is permanently attached to the same persons, the *capitalists*. Marx says this also very clearly in chapter Twenty-Three, p. 566:1.

163:1/o As the conscious carrier of this movement, the money owner becomes a capitalist. His person, or rather his pocket, is the point from which the money starts, and to which it returns. The objective content of the circulation we have been discussing—the valorization of value—is his subjective purpose, and it is only in so far as the appropriation of ever more wealth in the abstract is the sole driving force behind his operations that he functions as a capitalist, i.e., as a capital personified and endowed with consciousness and a will.

167:1/o Als bewußter Träger dieser Bewegung wird der Geldbesitzer Kapitalist. Seine Person, oder vielmehr seine Tasche, ist der Ausgangspunkt und der Rückkehrpunkt des Geldes. Der objektive Inhalt jener Zirkulation—die Verwertung des Werts—ist sein subjektiver Zweck, und nur soweit wachsende Aneignung des abstrakten Reichtums das allein treibende Motiv seiner Operationen, funktioniert er als Kapitalist oder personifiziertes, mit Willen und Bewußtsein begabtes Kapital.

↑ Marx says something important here: the capitalist’s individual motivation, his level [(M)] directly corresponds with his social role on level [(D)]. This is an exception; generally there is no direct correspondence between these two levels. This correspondence gives a brain to the social compulsion of value to self-expand and therefore makes it especially irresistible and resilient. Marx does not emphasize this enough, although this correspondence is implicit in many things Marx writes, for instance in 167:1.

The formulation “*only in so far as the appropriation of ever more wealth in the abstract is the sole driving force*” indicates that the economic category “capitalist” does not capture the full depth of individual agency. And in the Preface to *Capital I*, 10:1, Marx concedes that it is a limited view of the *individuals* to define them only by their economic roles.

Use-values must therefore never be treated as the immediate aim of the capitalist;⁷ nor must the profit on any single transaction. His aim is rather the unceasing movement of profit-making.⁸

Der Gebrauchswert ist also nie als unmittelbarer Zweck des Kapitalisten zu behandeln.⁷ Auch nicht der einzelne Gewinn, sondern nur die rastlose Bewegung des Gewinns.⁸

The two footnotes emphasize once more: the purpose of capital is not *use-value*, and also not *one-time profit*.

⁷ ‘Commodities’ (here used in the sense of use-values) ‘are not the terminating object of the trading capitalist, money is his terminating object.’ [Cha32, pp. 165–6]

⁷ „Waren“ (Hier im Sinn von Gebrauchswerten) „sind nicht der Endzweck des handeltreibenden Kapitalisten ... sein Endzweck ist Geld.“ [Cha32, pp. 165–6]

⁸ ‘Though the merchant does not count the profit he has just made as nothing, he nevertheless always has his eye on his future profit’ [Gen03, vol. 8, p. 139]

⁸ „Wenn der Kaufmann den bereits erzielten Gewinn auch nicht geringschätzt, so ist sein Blick doch immer auf den zukünftigen Gewinn gerichtet.“ [Gen03, t. VIII, p. 139]

Question 656 (a) If someone shops for a car and ends up buying a lemon, is this still the circuit $C - M - C$ although the second C is not a use-value for its owner?

(b) If a capitalist tries to make money but ends up with a loss, is this still $M - C - M$?

(c) A wage-worker buys an item at a very favorable price at *e-bay* not for his own use but because he knows his sister needs this item. Then he turns around and sell it to his sister

at double the price he himself paid for it. He does not reinvest this money but uses it for a vacation trip. His entire circuit is therefore $L-M-C-M'-C'$. Is the middle $M-C-M'$ in this circuit the circulation of capital or not?

In order to gain a correct perspective on this brief introduction of the capitalist note also that Marx characterizes here only what *makes* a capitalist (and capitalists were frugal only in the early times); *being* a capitalist implies more, just as the function of measure of value *makes* money what it is, but once this function has been attached to a specific use-value, many additional functions accrue to it. In money, it was the coalescence, by social custom, of a value form with a specific use-value which generated these new determinations; in the case of a capitalist it is the coming together of individual willful activity, driven by the “curse of money,” with a social determination. ↓ The following comparison between capitalist and miser indicates that the capitalist is driven by the “curse of money.”

This boundless drive for enrichment, this passionate chase after value,⁹ is common to the capitalist and the miser; but while the miser is merely a clumsy capitalist, the capitalist is the rational miser.

Dieser absolute Bereicherungstrieb, diese leidenschaftliche Jagd auf den Wert⁹ ist dem Kapitalisten mit dem Schatzbildner gemein, aber während der Schatzbildner nur der verrückte Kapitalist, ist der Kapitalist der rationelle Schatzbildner.

Later, in 587:4/o, this difference between capitalist and miser is formulated by the criterion whether levels [(M)] and [(D)] fall together: the capitalist represents a social force, while in the miser the curse of money shows itself as an individual mania. With the miser it is obvious that he is a victim who got stuck in the contradiction between real wealth and its social representation in money. With the capitalist this is less obvious, since he is more successful than the miser. But for instance in *Results*, , Marx emphasizes how much the capitalist is impoverished and enslaved by the social relation that seems to serve him so well:

The self-valorization of capital—the creation of surplus-value—is therefore the determining, dominating, and overarching purpose of the capitalist; it is the absolute motive and content of his activity. And in fact it is no more than the rationalized motive and aim of the miser—a highly impoverished and abstract content which makes the capitalist appear, from a different side, just as enslaved by the relations of capitalism, even if it is from the other side, on the opposite pole, as the worker.

Die Selbstverwertung des Kapitals—die Schöpfung von Mehrwert—ist also der bestimmende, beherrschende und übergreifende Zweck des Kapitalisten, der absolute Trieb und Inhalt seines Tuns, der in der Tat nur der rationalisierte Trieb und Zweck des Schatzbildners,—ein durchaus armseliger und abstrakter Inhalt, der den Kapitalisten von der andern Seite ganz ebenso sehr unter der Knechtschaft des Kapitalverhältnisses erscheinen läßt, wenn auch von anderer Seite her, auf dem entgegengesetzten Pol, als den Arbeiter.

The difference between capitalist and laborer is described here as follows:

What we are confronted by here is the *process of alienation* of his own labor. The worker stands on a higher plane than the capitalist from the outset, to the extent that the latter has his roots in the process of alienation and finds his absolute satisfaction in it, whereas right from the start the worker

Es ist der *Entfremdungsprozeß* seiner eigenen Arbeit. Insofern steht hier der Arbeiter von vorne herein höher als der Kapitalist, als der letztere in jenem Entfremdungsprozeß wurzelt und in ihm seine absolute Befriedigung findet, während der Arbeiter als sein Opfer von vorn herein dagegen in ei-

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is a victim who confronts it as a rebel and experiences it as a process of enslavement.

nem rebellischen Verhältnis steht und ihn als Knechtungsprozeß empfindet.

Objectively, capitalists are just as enslaved as the workers by the impoverished and abstract drive of self-valorization of capital. What distinguishes the workers and even raises them to a higher level is that they experience their objective enslavement as enslavement, while the capitalists find subjective satisfaction in it.

Question 657 *Can a situation which gives you subjective satisfaction be a situation of “enslavement”? Are there other examples for this than the capitalist?* 2012fa, 2010fa, 2008SP, 2003fa, 1999SP.

Question 658 *Marx is very critical of the “miser” and then he says the capitalist is the “rational” miser. I.e., some, but not all of the criticism of the miser also applies to the capitalist. What does Marx criticize the miser for, and which part of this criticism also applies to the capitalist?* 2009fa, 2002fa, 2000fa.

Question 659 *Is it true that the capitalist is more alienated than the worker?*

According to footnote 9, the classical economists knew that the capitalists, like misers, were driven by money, not by use-values. But the economists quickly forgot this again when confronted with the undesirable social implications of this drive on level [(D)] (overproduction):

⁹ ‘The inextinguishable passion for gain, the “accursed hunger for gold,” will always lead capitalists.’ (MacCulloch, *The Principles of Polit. Econ.*, London 1830, p. 179.) This insight does not, of course, prevent the same MacCulloch and his associates, when they are in theoretical difficulties, as for instance in the treatment of overproduction, from transforming the same capitalist into a good citizen whose sole concern is for use-values, and who even develops an insatiable hunger for boots, hats, eggs, calico, and other such mundane every-day use-values.

⁹ „Die unauslöschliche Leidenschaft für den Gewinn, die auri sacra fames bestimmt stets den Kapitalisten.“ (MacCulloch, „The Principles of Polit. Econ.“, London 1830, p. 179.) Diese Einsicht verhindert denselben MacCulloch und Konsorten natürlich nicht, in theoretischen Verlegenheiten, z.B. bei Behandlung der Überproduktion, denselben Kapitalisten in einen guten Bürger zu verwandeln, dem es sich nur um den Gebrauchswert handelt und der sogar einen wahren Werwolsheißhunger entwickelt für Stiefel, Hüte, Eier, Kattune und andere höchst familiäre Sorten von Gebrauchswert.

↑ The unbounded lust for more becomes laughable if it is applied to a particular use-value rather than to money.

The ceaseless augmentation of value, which the miser seeks to attain by saving his money from circulation,¹⁰ is achieved by the more cunning capitalist by means of throwing his money again and again into circulation.^{10a}

Die rastlose Vermehrung des Werts, die der Schatzbildner anstrebt, indem er das Geld vor der Zirkulation zu retten sucht,¹⁰ erreicht der klügere Kapitalist, indem er es stets von neuem der Zirkulation preisgibt.^{10a}

In the comparison capitalist—miser, Marx uses the word “to save” in two meanings. Although Marx writes in German, he is aware of this English pun. He mentions it in footnote 10.

¹⁰ “Σωζειν” is a characteristic Greek expression for hoarding. So in English the word “TO SAVE” means both “to rescue” and “to save money.”

¹⁰ „Σωζειν“ ist einer der charakteristischen Ausdrücke der Griechen für das Schatzbilden. Ebenso bedeutet „to save“ zugleich retten und sparen.

4.4. [Capital as Self-Expanding Value]

Footnote 10a gives an interesting philosophical commentary:

^{10a} ‘Things possess an infinite quality when moving in a circle which they lack when advancing in a straight line’ [Gal03, p. 156]

^{10a} „Das Unendliche, das die Dinge im Fortschreiten nicht haben, haben sie im Kreislauf.“ [Gal03, p. 156]

This is the end of the brief discussion of the capitalist for now. The capitalist supports, with his own will and intention, the social movement. This strengthens the social movement but at the same time this means the capitalist adds little to it that is new. Further discussions of the capitalist will always show how limited his role is and how dispensable he is. The only place where he does add something new to the social structure, i.e., where he has a specific social function as capitalist, is the accumulation decision which is described in *Capital*, 587:2–589:3/o. I.e., capitalists are the janitors who, through their individual consumption, mop up the surplus-value which cannot be immediately reinvested.

As to what *being* a capitalist implies, as opposed to *becoming* a capitalist, see the following quote from *Capital II*, chapter Two, p. : “(T)he purpose of the whole process, enrichment (the production of surplus-value) does not by any means exclude increasing consumption on the part of the capitalist as his surplus-value (and hence his capital) increases; on the contrary, it emphatically includes it.”

4.4. [Capital as Self-Expanding Value]

Animated with the will of the capitalist, $M - C - M'$ becomes a powerful process in which value, as subject, expands itself. These are the relations of production of which the capitalists are only the executors. The process is not driven by the capitalists, but capital itself is the driving force. This is the message of the remainder of chapter Four.

4.4.a. [Capital as Value in Motion]

In section 3 of Chapter One, the forms of the commodity were seen to be forms of value. The circulation process $C - M - C$ was the process in which the value produced by the private producer migrates to the consumer and is then discarded.

↓ In $C - M - C$, the value of the first C obtains independent form in M , but it stays in this form only for an instant, and after completion of the circulation, the value is forgotten, i.e., the second commodity no longer counts as value but only as use-value for its owner.

164:1/o The independent form, i.e., the monetary form, taken by the value of commodities in simple circulation, merely mediates the exchange of commodities, and vanishes again in the final result of the movement.

168:1/o Die selbständigen Formen, die Geldformen, welche der Wert der Waren in der einfachen Zirkulation annimmt, vermitteln nur den Warenaustausch und verschwinden im Endresultat der Bewegung.

↓ In $M - C - M$, by contrast, the value is never forgotten. The entire movement is a movement of the value through its different modes of existence:

In the circulation $M - C - M$, however, both money and commodity function as only two different modes of existence of value itself—the money as its general and the commodity as its particular or, so to speak, disguised mode of existence.¹¹

In der Zirkulation $G - W - G$ funktionieren dagegen beide, Ware und Geld, nur als verschiedene Existenzweisen des Werts selbst, das Geld seine allgemeine, die Ware seine besondere, sozusagen nur verkleidete Existenzweise.¹¹

4. General Formula of Capital

↓ Say formulates this succinctly, and for once, Marx seems to agree here with Say:

¹¹ 'It is not the material which forms capital, but the value of that material' (J. B. Say, *Traité d'Économie Politique*, 3rd edn, Paris, 1817, Vol. 2, p. 429).

¹¹ „Nicht der Stoff bildet das Kapital, sondern der Wert dieser Stoffe.“ (J. B. Say, „*Traité d'Écon. Polit.*“, 3ème éd., Paris 1817, t. II, p. 429.)

The view which sees C–M–C as a metamorphosis is also appropriate for M–C–M, with the difference that M–C–M is no longer the form change of a commodity between its production and consumption, but a form change of the *value* itself. From these form changes of value on the surface, Marx concludes that value itself has acquired new qualities in a capitalist society which it did not have in a primitive commodity-producing society. ↓ One might say that in capitalism, value itself is in motion.

It is continually changing from one form into the other, without losing itself in this movement; it thus transforms itself into an automatic subject.

Er geht beständig aus der einen Form in die andre über, ohne sich in dieser Bewegung zu verlieren, und verwandelt sich so in ein automatisches Subjekt.

↑ An “automatic subject” is a robot or a Frankenstein. It is the product of human labor which has become an independent agent. How did it receive its agency? This is the culmination of a long process, everything Marx said in the first three chapters has contributed to it. But the one thing Marx emphasizes here is that capital maintains its identity. What is remarkable about capital is not that it undergoes changes. Everything in the world changes. What is remarkable about capital is that it maintains its identity through these changes. If an elementary particle decays, it no longer exists but something else took its place. If capital changes from the money form to the commodity form, it still is the same value. The form change of value between commodity and money can therefore be seen in analogy to the biological metabolism every living organism must go through. (And maintaining identity with oneself is a nontrivial issue for biological organisms, as the many auto-immunity disorders show.)

Since capital maintains its identity through the process it is going through, Marx calls it a subject. The movement of capital becomes the action of the entity which persists through this movement. See [Pos96, p. 269] and also [Alb95]. However it is not a deliberate, conscious, but an automatic action. In the next sentence, Marx talks about the “life” of capital. This is an appropriate metaphor, as long as one keeps in mind that it is not a conscious life but a blind “circular” course, say better a “spiral.”

Question 662 In Notes about Wagner, [mecw24]534:1, Marx says: “Mr. Wagner forgets that neither value nor exchange-value are the subjects of my book, but the commodity is.” Is this in contradiction to his statement in chapter Four of Capital that value “transforms itself into an automatic subject”?

Question 663 Lipietz [Lip83, p. 29] writes: Value and value-in-process are two separate phenomena. The first is essentially social and synchronic; it is an instantaneous ‘map’ of the social division of labor in the form of quantitative relations between products. The other is individual and diachronic: we talk about ‘a’ value which is preserved through time, or which grows, is wasted, and so on.” Comment.

Question 664 What does Marx mean by an “automatic subject”? 2008fa, 2007SP, 2005fa, 2002fa, 1999SP, 1998WI.

↓ This change in form, and simultaneous increase in magnitude, must correspond to a change in content. Marx is not specific about what happened in the underlying relations of

4.4. [Capital as Self-Expanding Value]

production to effect this change. Right now he only says what it is *not*. Marx contrasts his definition of capital as value in motion with two quotes from the literature which do not see that capital continually and necessarily has to migrate from one form to the next:

If one fixes the specific forms of appearance assumed in turn by self-valorizing value in the circular course of its life, one arrives at the explanations: capital is money, capital is commodities.¹²

Fixiert man die besondren Erscheinungsformen, welche der sich verwertende Wert im Kreislauf seines Lebens abwechselnd annimmt, so erhält man die Erklärungen: Kapital ist Geld, Kapital ist Ware.¹²

↑ “Fixing” means here a snapshot view, which separates one phase of the movement from the movement itself.

¹² ‘Currency (!) employed in producing articles ... is capital’ (Macleod, *The Theory and Practice of Banking*, London, 1855, Vol. I, Ch. 1, p. 55). ‘Capital is commodities’ (James Mill, *Elements of Political Economy*, London, 1821, p. 74).

¹² „Das Zirkulationsmittel (!), das zu produktiven Zwecken verwendet wird, ist Kapital.“ (Macleod, „The Theory and Practice of Banking“, London 1855, v. I, c. 1, p. 55.) „Kapital ist gleich Waren.“ (James Mill, „Elements of Pol. Econ.“, Lond. 1821, p. 74.)

Macleod’s *The Theory and Practice of Banking* is critiqued much more thoroughly in footnote * to 375:1/o in *Contribution*. This theory-critical remark serves only as a point of entry for Marx’s own description of the process as a whole:

In truth, however, value is here the subject of a process in which, while constantly alternating between the forms of money and commodities, it changes its own magnitude, repels itself as surplus-value from itself as original value, and thus valorizes itself. The movement in the course of which it adds surplus-value is its own movement, its valorization is therefore self-valorization. Value has acquired the occult ability to add value to itself, by virtue of being value.

In der Tat aber wird der Wert hier das Subjekt eines Prozesses, worin er unter dem beständigen Wechsel der Formen von Geld und Ware seine Größe selbst verändert, sich als Mehrwert von sich selbst als ursprünglichem Wert abstößt, sich selbst verwertet. Denn die Bewegung, worin er Mehrwert zusetzt, ist seine eigne Bewegung, seine Verwertung also Selbstverwertung. Er hat die okkulte Qualität erhalten, Wert zu setzen, weil er Wert ist.

↑ Capital is value which creates more value. This surplus-value is not added to it from the outside, but it comes from the value’s own movement. ↓ The metaphor of giving birth to offspring is therefore appropriate:

It brings forth living offspring, or at least lays golden eggs.

Er wirft lebendige Junge oder legt wenigstens goldne Eier.

Capital is not money or commodity but *value* as subject. Valorization is its own movement, not something which is done with it.

Question 665 Which goose is more miraculous to Marx: the one which lays golden eggs, or the one which brings forth living offspring? Which goose should capital be compared with? [2002fa](#), [2001fa](#), [1998WI](#), [1997WI](#), [1995ut](#).

This concludes the description of the development of capital out of money, so to say, of the birth of capital. The next paragraph describes the relationship of capital with its logical parent, money:

4.4.b. [Money: Point of Reference in the Movement of Capital]

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165:1 As the overarching subject of such a process, in which it alternately assumes and discards the forms of money and commodities, but preserves and expands itself through all these changes, value is above all in need of an independent form by means of which its identity with itself is asserted. Only in the shape of money does it possess this form. Money is therefore the starting point and the conclusion of every valorization process. It was £100, and now it is £110, etc.

169:1 Als das übergreifende Subjekt eines solchen Prozesses, worin er Geldform und Warenform bald annimmt, bald abstreift, sich aber in diesem Wechsel erhält und ausreckt, bedarf der Wert vor allem einer selbständigen Form, worin seine Identität mit sich selbst konstatiert wird. Und diese Form besitzt er nur im Gelde. Dies bildet daher Ausgangspunkt und Schlußpunkt jedes Verwertungsprozesses. Er war 100 Pfd.St., er ist jetzt 110 Pfd.St. usw.

Übergreifendes Subject translated by Moore/Aveling with “active factor” (i.e., only the word “subject” is translated, the

attribute “übergreifend” is left to the context). Fowkes translates it with “dominant subject.” This is not quite precise; “übergreifend”

means: common to all the particular forms.

In order to define a metabolism, a fixed point is necessary, which defines the identity in this turnover of materials. (This is one of the many examples that everything contains its opposite: metabolism, i.e., *change* of materials, cannot be conceived without the identity of the changing subject!) This fixed point is money. Here we have the explanation of the fact which had been the starting point of chapter Four. Money is the “first” form of capital because it is the form which represents the unity of the process.

But the money itself counts here only as one of the two forms of value. Without taking commodity form, money does not become capital.

Aber das Geld selbst gilt hier nur als eine Form des Werts, denn er hat deren zwei. Ohne die Annahme der Warenform wird das Geld nicht Kapital.

↑ The process which turns value into more value can never happen when capital is in money form, it only happens when capital is in commodity form. ↓ The capitalist therefore does not look down on commodities like the miser, but he loves commodities.

Money does not polemicize here against commodities, as in hoarding. The capitalist knows that all commodities, however tattered their looks, or however foul their smell, are by faith and in truth money, are deep inside circumcised Jews, and in addition are miraculous means for making more money out of money.

Das Geld tritt hier also nicht polemisch gegen die Ware auf, wie in der Schatzbildung. Der Kapitalist weiß, daß alle Waren, wie lumpig sie immer aussehen oder wie schlecht sie immer riechen, im Glauben und in der Wahrheit Geld, innerlich beschnittene Juden sind und zudem wundertätige Mittel, um aus Geld mehr Geld zu machen.

Question 667 Explain the following aphorism about money as capital: “Money does not polemicize here against commodities, as in hoarding.” 255:2/o [2004fa](#), [1995ut](#), [1995WI](#).

The foul smell of the commodities is an allusion to the proverb that money does not smell, which Marx uses in [120:1](#).

“Miraculous means”: the capitalist often does not know why the process he is going through results in more money.

4.4.c. [Capital as Self-Referencing Value]

With money as point of reference and comparison, self-expanding value is no longer only a relation between commodities, but enters a relation to itself.

The self-activity of capital goes even further. Capital is not only an automatic subject; it is a subject which has a relation to itself (value for itself). Value no longer relates commodities, and in the final analysis commodity producers, to each other, but enters a relation to itself.

165:2/o In simple circulation, the highest achievement of the value of the commodities was to attain a form independent of their use-values, namely, the form of money. By contrast, in the circulation $M - C - M$, value suddenly presents itself as a self-moving substance, which passes through a process of its own, and for which commodities and money are both mere forms. Even more: instead of simply representing the relations of commodities, value now enters into a private relationship with itself, as it were.

169:2/o Wenn in der einfachen Zirkulation der Wert der Waren ihrem Gebrauchswert gegenüber höchstens die selbständige Form des Geldes erhält, so stellt er sich hier plötzlich dar als eine prozessierende, sich selbst bewegende Substanz, für welche Ware und Geld beide bloße Formen. Aber noch mehr. Statt Warenverhältnisse darzustellen, tritt er jetzt sozusagen in eine Privatverhältnis zu sich selbst.

↑ This relationship which capital has with itself gives stability to capital accumulation. Since capital continually compares itself with what it was yesterday, it notices immediately if it is not profitable. This continuous monitoring allows capital to stay its course and to pull the other spheres of society along. There are no similar mechanisms monitoring whether a democracy is democratic enough, etc.

↓ Marx describes capital's private relationship with itself in Hegelian terms: the difference between originally advanced capital and surplus-value disappears as soon as it arises, but capital is what it is, namely capital, only due to this difference.

It differentiates itself as original value from itself as surplus-value, just as God the Father differentiates himself from himself as God the Son. Both are of the same age and form, in fact one single person, for only by the surplus-value of £10 does the £100 originally advanced become capital, and as soon as this has happened, as soon as the son has been created and, through the son, the father, their difference vanishes again, and both become one, £110.

Er unterscheidet sich als ursprünglicher Wert von sich als Mehrwert, als Gott Vater von sich selbst als Gott Sohn, und beide sind vom selben Alter und bilden in der Tat nur eine Person, denn nur durch den Mehrwert von 10 Pfd.St. werden die vorgeschossenen 100 Pfd.St. Kapital, und sobald sie dies geworden, sobald der Sohn und durch den Sohn der Vater erzeugt, verschwindet ihr Unterschied wieder und sind beide Eins, 110 Pfd.St.

Question 668 Why does Marx say in 256:1 that the surplus-value has the same age as the capital from which it springs? 2012fa, 2010fa.

Question 669 Marx stresses that a commodity has value before it even enters the market, and in 248:2 he says that $M-C-M$ is the circulation of capital even if the second M is not bigger than the first. But in 256:1 he seems to imply that capital becomes capital only in the moment when it has created surplus-value. Is it inconsistent of Marx to apply a lax criterion to the commodity and the circuit of capital, and a strict criterion to capital itself?

↓ Marx summarizes the above dialectical relationship between capital and surplus-value with the words that capital is "value in process," and Marx shows that a similar dialectical

4. General Formula of Capital

relationship holds between capital in money form outside circulation, and capital thrown into circulation:

166:1 Value therefore now becomes value in process, money in process and, as such, capital. It comes out of circulation, enters into it again, preserves and multiplies itself within circulation, emerges from it with an increased size, and starts the same cycle again and again.¹³

170:1 Der Wert wird also prozessieren-der Wert, prozessierendes Geld und als solches Kapital. Er kommt aus der Zirkulation her, geht wieder in sie ein, erhält und vervielfältigt sich in ihr, kehrt vergrößert aus ihr zurück und beginnt denselben Kreislauf stets wieder von neuem.¹³

Question 670 In 256:2 Marx says “value comes out of circulation.” Doesn’t this contradict other places where Marx emphasizes that value exists already before the commodity even enters circulation?

↑ All money originates in circulation. If it is capital, it re-enters circulation in order to re-emerge from it with increased quantity, and keeps repeating this process. The chapter began with the one-sentence paragraph that the circulation of commodities is the point of departure for capital. The sentence which we just read says what capital does after this point of departure.

$M - M'$, ‘money which begets money’, such is the description of capital given by its first interpreters, the mercantilists.

$G - G'$, geldheckendes Geld—money which begets money—lautet die Beschreibung des Kapitals im Munde seiner ersten Dolmetscher, der Merkantilisten.

↑ The word “interpreter” (in German “*Dolmetscher*”) does not mean someone who gives an interpretation, but someone who translates from one language into another, here, from the commodity language into the human language.

¹³ ‘Capital ... permanent self-multiplying value’ (Sismondi, *Nouveaux principes d’économie politique*, Vol. 1, p. 89)

¹³ „Kapital ... permanenter sich vervielfältigender Wert.“ (Sismondi, „Nouveaux Principes d’Écon. Polit.“, t. 1, p. 89.)

The mercantilist phrase “money which begets money” is testimony that the mercantilists have understood something about capital, even though they confuse value with its independent form.

Question 671 What is mercantilism? In which way are countries with mercantilist policies similar to misers? How do they differ? 2012fa, 2011fa, 2009fa, 2008fa, 2007SP, 2004fa.

4.4.d. [M–C–M’ and Other Forms of Capital]

The last two paragraphs of the chapter lead from this most general definition of capital on level [(D)] back to $M - C - M'$ on level [(G)]. $M - C - M'$ is not only the form of merchant capital; it is the *general* form of capital as long as we look at it only in *circulation*:

166:2 It may seem that buying in order to sell (or, to give a more complete description, buying in order to sell dearer, $M - C - M'$), is the form peculiar to only one kind of capital, namely, merchant capital. But also industrial capital is money which has been changed into commodities, and reconverted

170:2 Kaufen, um zu verkaufen, oder vollständiger, kaufen, um teurer zu verkaufen, $G - W - G'$, scheint zwar nur einer Art des Kapitals, dem Kaufmannskapital, eigentümliche Form. Aber auch das industrielle Kapital ist Geld, das sich in Ware verwandelt und durch den Verkauf der Ware in

into more money by the sale of commodities.

mehr Geld rückverwandelt.

↑ Industrial capital has the formula $M-C \dots C'-M'$, where “...” represents production, a process outside circulation. ↓ If one looks at circulation alone, this is the same as $M-C-M'$. Events which take place outside the sphere of circulation, in the interval between buying and selling, do not affect the form of this movement.

Akte, die etwa zwischen dem Kauf und dem Verkaufe, außerhalb der Zirkulationssphäre, vorgehn, ändern nichts an dieser Form der Bewegung.

↓ Now interest-bearing capital. Even in $M-M'$, a $M-C-M'$ is in the background.

Lastly, in the case of interest-bearing capital, the circulation $M-C-M'$ has an abbreviated representation in its result without the mediation, so to speak in telegraphic style, as $M-M'$, i.e., money which is worth more money, value which is greater than itself.

In dem zinstragenden Kapital endlich stellt sich die Zirkulation $G-W-G'$ abgekürzt dar, in ihrem Resultat ohne die Vermittlung, sozusagen im Lapidarstil, als $G-G'$, Geld, das gleich mehr Geld, Wert, der größer als er selbst ist.

Question 672 What is merchants' capital? industrial capital? interest-bearing capital? What is the difference between a merchant and a mercantilist? 1999SP, 1998WI.

↓ The formula $M-C-M'$ is therefore not just the form of circulation of merchant capital but the general formula of capital, as the title of the chapter says.

166:3 $M-C-M'$ is therefore in fact the general formula of capital, as it immediately appears in the sphere of circulation.

170:3 In der Tat also ist $G-W-G'$ die allgemeine Formel des Kapitals, wie es unmittelbar in der Zirkulationssphäre erscheint.

↑ The formula $M-C-M'$ only captures the acts in circulation. It is the “immediate” appearance of capital in circulation because it does not show the mediations which make this circulation possible. The next chapter will show that capital can only beget surplus-value if it does not stay in circulation but spends part of its circuit outside circulation.

5. Contradictions of the General Formula

According to Chapter Four, capital has the purpose to turn value into more value. But we do not yet know *how* capital does this. Chapter Four began with the general empirical observation that many people in capitalism successfully perform $M - C - M'$, and inferred the motivations of the agents and the underlying social content of this movement. This was done without knowing how $M - C - M'$ can be achieved. It was an almost hypothetical argument of the kind: we see that $M - C - M'$ is happening, and assuming that we can trust our eyes and this is what is indeed happening, what are the purposes of the agents and their social roles in doing this? To use a term from Critical Realism, it was a big second-order conclusion. Chapter Five continues on the same basis that we see $M - C - M'$ happening and draw our inferences from it. But this time it arrives a conflicting result. Namely, chapter Five shows that $M - C - M'$ seems *impossible*—unless certain conditions are satisfied which one would never expect to hold because they seem contradictory. The resolution will be given in chapter Six, which shows how these contradictory conditions can be satisfied, and that they are indeed satisfied under contemporary capitalism.

166:4/o The form of circulation in which capital emerges from its monetary pupa contradicts all the previously developed laws bearing on the nature of commodities, value, money and of circulation itself.

170:4 Die Zirkulationsform, worin sich das Geld zum Kapital entpuppt, widerspricht allen früher entwickelten Gesetzen über die Natur der Ware, des Werts, des Geldes und der Zirkulation selbst.

The Moore-Aveling formulation “is opposed to all the laws” is misleading: one might think it

means that a capitalist must cheat or otherwise break the laws of circulation. Fowkes has

“contradicts” which is better since it has more the connotation of an internal contradiction.

↑ It is impossible to tell by just looking at a given amount of money whether this money is capital and its owner a capitalist. You can only tell if you watch its circulation, which is therefore compared with the emergence of a butterfly from its pupa.

The first sentence is a short comment about the results of chapter Four. In the rest of the paragraph, Marx brings arguments that doubt the results obtained in chapter Four.

Question 673 *In what respects does $M - C - M$ “contradict all the previously developed laws bearing on the nature of commodities, value, money, and of circulation itself”?* 2011fa, 2010fa, 2008fa, 2007SP.

The only thing that distinguishes this form from the simple circulation of commodities is the inverted order in which the same two opposite processes, sale and purchase, take place. How should such a purely formal difference be able to magically change the nature of these processes?

Was sie von der einfachen Warenzirkulation unterscheidet, ist die umgekehrte Reihenfolge derselben zwei entgegengesetzten Prozesse, Verkauf und Kauf. Und wie sollte solcher rein formelle Unterschied die Natur dieser Prozesse umzaubern?

It is ok to translate the first “*unterscheidet*” with “distinguishes,” but “*Unterschied*” is, in the above translation, not translated with “distinction” but with “difference.” Here is why. “Distinguishes” means: this is a

difference which allows us to tell them apart, i.e., distinguish them. But the noun “distinction” is the act of distinguishing, maybe the German counterpart would be “*Unterscheidung*.” The German “*Unterschied*,” on the other hand,

is not the distinction made by the observer but a difference in the object. The translation of “*Unterschied*” with “distinction” commits the epistemic fallacy.

↑ Marx calls the difference between $C-M-C$ and $M-C-M$ “purely formal.” (*formell*, not *formal*.) The word “purely” is significant here. This difference in form does not seem to be rooted in a difference in content. Just as the difference between metal street signs and plastic street signs is purely formal, it does not say anything about the topography of the city.

Question 674 Regarding the difference between $C-M-C$ and $M-C-M$, Marx asks in 258:1: “How can such a purely formal difference (namely the inverted order in which sale and purchase take place) be able to magically change the nature of these processes?” This is meant as a rhetorical question, Marx’s message here is that this seems impossible. Later however we find out that it is not impossible at all, the inverted order does indeed signify a difference in substance. Therefore this rhetorical question deserves a serious answer. How is it possible that such a formal difference is rooted in a difference of the nature of the process?

This chapter gives a critical reassessment of the results of the preceding chapter. Marx throws doubt on his earlier findings with two questions.

1. ↑ How can it be that a simple change in *form*, a merely inverted order of two actions, can make such a *radical* difference in the nature of the process?
2. ↓ Moreover, this change seems to be only subjective, it exists only for the capitalist. His business partners cannot tell whether he does $M-C-M$ or $C-M-C$:

167:1 But that is not all. This inversion has no existence for two of the three persons transacting business with each other.

170:5/o Noch mehr. Diese Umkehrung existiert nur für einen der drei Geschäftsfreunde, die miteinander handeln.

Only the capitalist K knows that he first buys from A and then sells to B . Neither A nor B know and care. To show this, Marx argues: if the capitalist K were to switch from $M-C-M$ to $C-M-C$, i.e., if K were to first sell to B and then buy from A , neither A nor B would see a difference.

As a capitalist, I buy commodities from A and sell them again to B , but as a simple owner of commodities I sell commodities to B and then purchase further commodities from A . For A and B this difference does not exist. They step forth only as buyers or sellers of commodities. I myself confront them each time as a mere owner of either money or commodities, as a buyer or a seller. Whether I do $M-C-M$ or $C-M-C$, I confront A only as a buyer and B only as a seller, I confront the one only as money, the other only as commodities, but neither of them as capital or a capitalist or a

Als Kapitalist kaufe ich Ware von A und verkaufe sie wieder an B , während ich als einfacher Warenbesitzer Ware an B verkaufe und dann Ware von A kaufe. Für die Geschäftsfreunde A und B existiert dieser Unterschied nicht. Sie treten nur als Käufer oder Verkäufer von Waren auf. Ich selbst stehe ihnen jedesmal gegenüber als einfacher Geldbesitzer oder Warenbesitzer, Käufer oder Verkäufer, und zwar trete ich in beiden Reihenfolgen der einen Person nur als Käufer und der andren nur als Verkäufer gegenüber, der einen als nur Geld, der andren als nur Ware, keiner von beiden als Ka-

5. Contradictions of $M-C-M$

representative of anything more than money or commodities, or of anything which might produce any effect beyond that produced by money or commodities.

↑ Neither A nor B know that the capitalist K is trying to act as a capitalist instead of a simple commodity owner, and therefore K will get no different treatment from them than any other commodity owner. Marx questions here his own definition of the capital circuit. Is it a real definition or only a perspective? Is a capitalist defined too broadly, don't we have to include in this definition how the surplus-value is created? ↓ Finally, the connection between purchase and subsequent sale exists only for the capitalist, not for anybody else:

For me the purchase from A and the sale to B are part of a sequence. But the connection between these two acts exists only for me. A does not trouble himself about my transaction with B , nor does B about my business with A .

pital oder Kapitalist oder Repräsentant von irgend etwas, das mehr als Geld oder Ware wäre oder eine andre Wirkung außer der des Geldes oder der Ware ausüben könnte.

Für mich bilden Kauf von A und Verkauf an B eine Reihenfolge. Aber der Zusammenhang zwischen diesen beiden Akten existiert nur für mich. A schert sich nicht um meine Transaktion mit B , und B nicht um meine Transaktion mit A .

↑ In other words, the inversion from $C-M-C$ to $M-C-M$ does not remove the capitalist from simple circulation. The capitalist doing $M-C-M$ cannot expect to be treated differently than the simple commodity producer doing $C-M-C$. ↓ This is all Marx wants to show now, but he cannot resist giving a comical ending to his counterfactual story. He imagines now that K implores A and B to please treat him as a capitalist! Instead of giving respect and recognition, A and B first pretend not to understand what K is talking about, and after K insists, they unceremoniously kick him off the stage and A starts selling directly to B .

And if I offered to explain to them the meritorious nature of my inversion of the order of sale and purchase, they would probably point out to me that I was mistaken as to that order, and that the whole transaction, instead of beginning with a purchase and ending with a sale, began, on the contrary, with a sale and was concluded with a purchase. In truth, my first act, the purchase, was from the standpoint of A a sale, and my second act, the sale, was from the standpoint of B a purchase.

Wollte ich ihnen etwa das besondere Verdienst klarmachen, das ich mir durch die Umkehrung der Reihenfolge erwerbe, so würden sie mir beweisen, daß ich mich in der Reihenfolge selbst irre und daß die Gesamttransaktion nicht mit einem Kauf begann und einem Verkauf endete, sondern umgekehrt mit einem Verkauf begann und mit einem Kauf abschloß. In der Tat, mein erster Akt, der Kauf, war von A 's Standpunkt ein Verkauf, und mein zweiter Akt, der Verkauf, war von B 's Standpunkt ein Kauf.

↑ Not only do others not know what the capitalist is doing, but the difference between the capitalist's $M-C-M$ and everybody else's $C-M-C$ is also entirely subjective. ↓ On top of all this, the capitalist's activity is also redundant, it does not add anything useful to circulation:

Not content with that, A and B would declare that the whole series was superfluous and nothing but hocus-pocus; that for the future A would buy direct from B , and B sell direct to A . With this the whole transaction would shrink down to a single, one-sided phase of the ordinary circulation of commodities, a

Nicht zufrieden damit, werden A und B erklären, daß die ganze Reihenfolge überflüssig und Hokusfokus war. A wird die Ware direkt an B verkaufen und B sie direkt von A kaufen. Damit verschrumpft die ganze Transaktion in einen einseitigen Akt der gewöhnlichen Warenzirkulation, vom

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mere sale from A's point of view, and from B's, a mere purchase.

Standpunkt A's bloßer Verkauf und vom Standpunkt B's bloßer Kauf.

↑ In other words, the capitalist's individual interest, his desire to turn money into more money, seems to have little chance of gaining enough social resonance that he can actually do it.

Question 675 Does Marx argue in 258:2/o that capitalist profits are middleman's profits, and if buyer and seller sold directly to each other, there would be no profit? [Answer](#), [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2008SP](#), [2007fa](#), [2004fa](#), [2003fa](#), [2000fa](#), [1998WI](#).

Question 676 Marx does not really answer the objection that $M-C-M$ is only subjective for the capitalist. Can this objection be refuted? [2012fa](#), [2008fa](#).

↓ Serious again, Marx takes stock: obviously, the inversion from $C-M-C$ to $M-C-M$ does not take us outside of simple commodity circulation. Therefore his next question is: is there any way to make profits in simple circulation?

Thus the inversion of the order of succession does not take us outside the sphere of the simple circulation of commodities, and we must rather look to see whether this simple circulation, by its nature, might permit the valorization of the values entering into it and consequently the formation of surplus-value.

Wir sind also durch die Umkehrung der Reihenfolge nicht über die Sphäre der einfachen Warenzirkulation hinausgekommen und müssen vielmehr zusehn, ob sie ihrer Natur nach Verwertung der in sie eingehenden Werte und daher Bildung von Mehrwert gestattet.

↑ Marx's formulation "we must rather look to see" is a variation of the usual announcement "let us look at it more closely" whenever Marx takes a step back in order to question his own argument. Since the formula $M-C-M$ does not go beyond circulation, and since there is no *obvious* way to generate surplus-value in circulation, Marx is going to look systematically at every conceivable possibility of creating surplus-value in the sphere of circulation.

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Marx first asks whether surplus-value can be generated in circulation if equivalents are exchanged, then he looks at the exchange of non-equivalents, then he asks whether individual differences between the exchanger could lead to profits. In all these cases, the answer is "no," this cannot be the mechanism generating the profits which we see in capitalism.

The first part, that surplus-value cannot spring from circulation alone, is trivial in the paradigm of an objective theory of value. The main difficulty is to explain why so many people think surplus-value *can* be generated in circulation. Marx brings here an immanent critique of the subjective theory of value.

5.1.a. [Exchange of Equivalents]

First step: Can surplus-value be created in circulation if prices are equal to values? In order to avoid the complications brought into this question by money, Marx first looks at a situation in which commodity is exchanged against commodity, and money is used only afterwards in order to settle the balances—and he looks at a situation in which those balances happen to be zero, so that money, physically, does not change hands at all:

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167:2–168:1 Let us take the process of circulation in a form in which it looks like a simple barter of commodities. Circulation presents itself in the form of simple barter whenever two owners of commodities buy from each other, and on the date of settlement the amounts they owe to each other balance out equally. Money serves here as money of account, and expresses the values of the commodities in their prices, but does not itself confront the commodities as a thing.

↑ Such a transaction may have many advantages for the trading partners, but is the creation of surplus-value one of these advantages? ↓ Marx looks at the advantages in turn. First advantage: both exchangers may gain in terms of use-value:

In so far as use-values are concerned, it is clear that both parties may gain. Both of them part with commodities which are of no service to them as use-values, and receive others they need to use.

↓ Second advantage: in the presence of exchange, the producers can be more productive than without exchange, since they can specialize on those things in which they are better. Marx uses here Ricardo's famous example with corn (England) and wine (Portugal):

And this may not be the only advantage gained. *A*, who sells wine and buys corn, possibly produces more wine in the same labor-time than *B*, the corn farmer, could produce, and *B*, on the other hand, may produce more corn than *A*, the wine grower, could produce. *A* may therefore get more corn for the same exchange-value, and *B* more wine, than each would respectively get without any exchange if they had to produce their own corn and wine. With reference to use-value, it can therefore indeed be said that 'exchange is a transaction by which both sides gain'.¹⁴

¹⁴ 'Exchange is an admirable transaction by which both sides gain—always (!)' (Destutt de Tracy, *Traité de la volonté et de ses effets*, Paris, 1826, p. 68). This same book also appeared under the title *Traité d'économie politique*.

↑ Higher productivity means: more use-value is produced in the same time. Each party trades that commodity which they can produce more efficiently, but in terms of labor-time it is still an equal trade. Also this second example illustrates therefore gains in use-value, not gains in value. ↓ Now Marx looks at exchange-value: there is equality, no advantage: It is otherwise with exchange-value.

171:1–172:1 Nehmen wir den Zirkulationsprozeß in einer Form, worin er sich als bloßer Warenaustausch darstellt. Dies ist stets der Fall, wenn beide Warenbesitzer Waren voneinander kaufen und die Bilanz ihrer wechselseitigen Geldforderungen sich am Zahlungstag ausgleicht. Das Geld dient hier als Rechengeld, um die Werte der Waren in ihren Preisen auszudrücken, tritt aber nicht den Waren selbst dinglich gegenüber.

Soweit es sich um den Gebrauchswert handelt, ist es klar, daß beide Austauscher gewinnen können. Beide veräußern Waren, die ihnen als Gebrauchswert nutzlos, und erhalten Waren, deren sie zum Gebrauch bedürfen.

Und dieser Nutzen mag nicht der einzige sein. *A*, der Wein verkauft und Getreide kauft, produziert vielleicht mehr Wein, als Getreidebauer *B* in derselben Arbeitszeit produzieren könnte, und Getreidebauer *B* in derselben Arbeitszeit mehr Getreide, als Weinbauer *A* produzieren könnte. *A* erhält also für denselben Tauschwert mehr Getreide und *B* mehr Wein, als wenn jeder von den beiden, ohne Austausch, Wein und Getreide für sich selbst produzieren müßte. Mit Bezug auf den Gebrauchswert also kann gesagt werden, daß „der Austausch eine Transaktion ist, worin beide Seiten gewinnen“¹⁴.

¹⁴ „L'échange est une transaction admirable dans laquelle les deux contractants gagnent—toujours (!).“ (Destutt de Tracy, „*Traité de la Volonté et de ses effets*“ Paris 1826, p. 68.) Dasselbe Buch erschien auch als „*Traité d'Éc. Pol.*“

Anders mit dem Tauschwert.

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‘A man who has plenty of wine and no corn treats with a man who has plenty of corn and no wine; an exchange takes place between them of corn to the value of 50, for wine of the same value. This act produces no increase of exchange-value either for the one or the other; for each of them already possessed, before the exchange, a value equal to that which he acquired by means of that operation.’¹⁵

„Ein Mann, der viel Wein und kein Getreide besitzt, handelt mit einem Mann, der viel Getreide und keinen Wein besitzt, und zwischen ihnen wird ausgetauscht Weizen zum Wert von 50 gegen einen Wert von 50 in Wein. Dieser Austausch ist keine Vermehrung des Tauscherts weder für den einen noch für den andren; denn bereits vor dem Austausch besaß jeder von ihnen einen Wert gleich dem, den er sich vermittelt dieser Operation verschafft hat.“¹⁵

¹⁵ Mercier de la Rivière, op. cit., p. 544.

¹⁵ Mercier de la Rivière, l.c. p. 544.

↑ If commodities are exchanged against commodities without money changing hands at the same time, both sides may gain with respect to use-value, but the values are not increased.
↓ The result will be the same if the commodity is sold for money:

168:2 This situation is not altered when money, as a medium of circulation, steps between the commodities, and when sale and the purchase become two physically distinct acts.¹⁶

172:2 Es ändert nichts an der Sache, wenn das Geld als Zirkulationsmittel zwischen die Waren tritt und die Akte des Kaufs und Verkaufs sinnlich auseinanderfallen.¹⁶

↑ Marx defends this claim with an argument of the form: it cannot be otherwise, since money is only an intermediary which only *physically* splits up sale and purchase. This physical presence cannot add anything new.

¹⁶ ‘Whether one of these two values is money, or whether they are both ordinary commodities, is in itself a matter of complete indifference’ (Mercier de la Rivière, op. cit., p. 543).

¹⁶ „Ob einer dieser beiden Werte Geld ist oder beide gewöhnliche Waren sind, nichts kann an sich gleichgültiger sein.“ (Mercier de la Rivière, l.c. p. 543.)

↓ The next sentence, that value is not determined in circulation but already exists before circulation, is additional corroboration:

The value of a commodity is expressed in its price before it enters into circulation, and is therefore a precondition of circulation, not its result.¹⁷

Der Wert der Waren ist in ihren Preisen dargestellt bevor sie in die Zirkulation treten, also Voraussetzung und nicht Resultat derselben.¹⁷

¹⁷ ‘It is not the parties to a contract who decide on the value; that has been decided before the contract’ (Le Trosne, op. cit., p. 906).

¹⁷ „Über den Wert entscheiden nicht die Vertragspartner; er steht schon vor der Übereinkunft fest.“ (Le Trosne, l.c. p. 906.)

But this last sentence is also the opening for quite abstract positive argument in which Marx scrutinizes his earlier abstract analysis of $C - M - C$ (from chapter Three) to see if there is an opening for the creation of surplus-value in circulation:

168:3/o If considered in the abstract, i.e. disregarding any circumstances that do not flow from the immanent laws of simple commodity circulation, all that happens in exchange (if we leave aside the replacement of one use-value by another) is a metamorphosis, a mere change in the form of the commodity.

172:3/o Abstrakt betrachtet, d.h. abgesehen von Umständen, die nicht aus den immanenten Gesetzen der einfachen Warenzirkulation hervorfließen, geht außer dem Ersatz eines Gebrauchswerts durch einen andren nichts in ihr vor als eine Metamorphose, ein bloßer Formwechsel der Ware.

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Question 678 How does the abstraction Marx makes in the first sentence of 260:2/o differ from the *ceteris paribus* assumptions of modern economics? 2010fa, 2005fa.

Two things are going on in the circulation process if one disregards all other mechanisms: replacement of one use-value by another, and a form change of the commodity. Marx concentrates now on the latter.

The same value, i.e. the same quantity of objectified social labor, remains throughout in the hands of the same commodity-owner, first in the shape of his own commodity, then in the shape of the money into which the commodity has been transformed, and finally in the shape of the commodity into which this money has been re-converted. This change of form does not imply any change in the magnitude of the value.

Derselbe Wert, d.h. dasselbe Quantum ver-gegenständlichter gesellschaftlicher Arbeit, bleibt in der Hand desselben Warenbesitzers in Gestalt erst seiner Ware, dann des Geldes, worin sie sich verwandelt, endlich der Ware, worin sich dies Geld rückverwandelt. Dieser Formwechsel schließt keine Änderung der Wertgröße ein.

↓ The commodity's value goes through a change analogous to the situation where a dollar bill is exchanged for four quarters:

But the change which the value of the commodity undergoes in this process is limited to a change in its money-form. This form exists first as the price of the commodity offered for sale, then as an actual sum of money, which was, however, already expressed in the price, and lastly as the price of an equivalent commodity. This change of form no more implies, taken alone, a change in the quantity of value than does the changing of a £ 5 note into sovereigns, half-sovereigns and shillings.

Der Wechsel aber, den der Wert der Ware selbst in diesem Prozeß durchläuft, beschränkt sich auf einen Wechsel seiner Geldform. Sie existiert erst als Preis der zum Verkauf angebotenen Ware, dann als eine Geldsumme, die aber schon im Preise ausgedrückt war, endlich als der Preis einer äquivalenten Ware. Dieser Formwechsel schließt an und für sich ebensowenig eine Änderung der Wertgröße ein wie das Auswechseln einer Fünfpfundnote gegen Sovereigns, halbe Sovereigns und Schillinge.

If you "make change," i.e., exchange dollar bills for smaller bills or coins, you don't think you have different money now. It is the same money in a different form. Now if you *buy* something with your money you of course no longer have the same money, but you still have the same *value*, just in a different form. This form change does not affect the quantity of your value.

As long as the circulation of commodities is nothing but the vehicle for the form change of its value, it involves therefore, if the phenomenon occurs in its purity, the exchange of equivalents.

Sofern also die Zirkulation der Ware nur einen Formwechsel ihres Werts bedingt, bedingt sie, wenn das Phänomen rein vorgeht, Austausch von Äquivalenten.

↑ Since it is a change the possibility exists that the quantity changes as well. But there is no reason for it; a form change does not imply a change in quantity. ↓ Even the vulgar economists impose such a condition whenever they assume away imbalances between demand and supply:

Even the vulgar economists, who have no inkling of the nature of value, assume therefore that supply and demand are equal, i.e. that supply and demand cease to have any

Die Vulgärökonomie selbst, so wenig sie ahnt, was der Wert ist, unterstellt daher, so oft sie in ihrer Art das Phänomen rein betrachten will, daß Nachfrage und Zufuhr

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effect at all, whenever they wish to consider, after their fashion, the phenomenon in its purity.

↓ The lesson to be drawn from this abstract argument is that circulation cannot be the source of value.

With respect to the use-values exchanged, therefore, both buyer and seller may possibly gain something, but this is not the case with respect to exchange-values. Here we must rather say: 'Where there is equality there is no gain.'¹⁸ It is true that commodities may be sold at prices which diverge from their values, but this divergence appears as a violation of the laws governing the exchange of commodities.¹⁹ In its pure form, the exchange of commodities is an exchange of equivalents, and thus it is not a method of increasing value.²⁰

¹⁸ Dove è egualità non è lucro. (Galiani, Della Moneta, in Custodi, Parte moderna, Vol. 4, p. 244).

¹⁹ 'The exchange becomes unfavorable for one of the parties when some external circumstance comes to lessen or increase the price; then equality is infringed; but this infringement arises from that cause and not from the exchange itself' (Le Trosne, op. cit., p. 904).

²⁰ 'Exchange is by its nature a contract which rests on equality, i.e. it takes place between two equal values. It is therefore not a means of self-enrichment, since as much is given as is received' (Le Trosne, op. cit., p. 903).

sich decken, d.h., daß ihre Wirkung überhaupt aufhört.

Wenn also mit Bezug auf den Gebrauchswert beide Austauscher gewinnen können, können sie nicht beide gewinnen an Tauschwert. Hier heißt es vielmehr: „Wo Gleichheit ist, ist kein Gewinn.“¹⁸ Waren können zwar zu Preisen verkauft werden, die von ihren Werten abweichen, aber diese Abweichung erscheint als Verletzung des Gesetzes des Warenaustausches.¹⁹ In seiner reinen Gestalt ist er ein Austausch von Äquivalenten, also kein Mittel, sich an Wert zu bereichern.²⁰

¹⁸ „Dove è egualità non è lucro.“ (Galiani, „Della Moneta“, in Custodi, Parte Moderna, t. IV, p. 244.)

¹⁹ „Der Austausch wird für eine der beiden Parteien ungünstig, wenn irgendein fremder Umstand den Preis vermindert oder erhöht: dann ist die Gleichheit verletzt; aber diese Verletzung ist durch jene Ursache hervorgerufen und nicht durch den Austausch.“ (Le Trosne, l.c. p. 904.)

²⁰ „Der Austausch ist seiner Natur nach ein Vertrag, der auf Gleichheit aufbaut, d.h. zwischen zwei gleichen Werten zustande kommt. Er ist also kein Mittel, sich zu bereichern, da man ebensoviel gibt wie empfängt.“ (Le Trosne, l.c. p. 903, 904.)

Exam Question 679 *Is exchange (direct barter) a transaction in which both sides gain more than they give up?* 2013fa, 2012fa, 2011fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1998WI.

Next Marx takes a look at the many false theories about this matter. He begins with a summary judgment which will then be backed up by quotes from Condillac, LeTrosne, and Neumann:

169:1–170:3 Hence we see that behind all attempts to represent the circulation of commodities as a source of surplus-value, there lurks an inadvertent substitution, a confusion of use-value and exchange-value.

The distinction between exchange-value and use-value is one of the first observations Marx makes about the commodity (and is literally *the* first thing he says in *Contribution*

173:1–174:3 Hinter den Versuchen, die Warenzirkulation als Quelle von Mehrwert darzustellen, lauert daher meist ein Quid-proquo, eine Verwechslung von Gebrauchswert und Tauschwert.

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269:1). Rightly so, because nothing useful can be said about the commodity if this distinction is not made. Let's see how Condillac conflates these two concepts in the following quote:

In Condillac, for instance:

'It is not true that in an exchange of commodities we give value for value. On the contrary, each of the two contracting parties in every case gives a less for a greater value ... If we really exchanged equal values, neither party could make a profit. And yet they both gain, or ought to gain. Why? The value of a thing consists solely in its relation to our needs. What is more to the one is less to the other, and vice versa ... It is not to be assumed that we offer for sale articles essential for our own consumption ... We wish to part with a useless thing, in order to get one that we need; we want to give less for more ... It was natural to think that, in an exchange, one value was given for another equal to it whenever each of the articles exchanged was of equal value with the same quantity of gold ... But there is another point to be considered in our calculation. The question is, whether we both exchange something superfluous for something necessary.'²¹

²¹ Condillac, *Le Commerce et le gouvernement* (1776), éd. Daire and Molinari, in the *Mélanges d'économie politique*, Paris, 1847, pp. 267, 291.

So z.B. bei Condillac:

„Es ist falsch, daß man im Warenaustausch gleichen Wert gegen gleichen Wert austauscht. Umgekehrt. Jeder der beiden Kontrahenten gibt immer einen kleineren für einen größeren Wert ... Tauschte man in der Tat immer gleiche Werte aus, so wäre kein Gewinn zu machen für irgendeinen Kontrahenten. Aber alle beide gewinnen oder sollten doch gewinnen. Warum? Der Wert der Dinge besteht bloß in ihrer Beziehung auf unsre Bedürfnisse. Was für den einen mehr, ist für den andren weniger, und umgekehrt ... Man setzt nicht voraus, daß wir für unsre Konsumtion unentbehrliche Dinge zum Verkauf ausbieten ... Wir wollen eine uns nutzlose Sache weggeben, um eine uns notwendige zu erhalten; wir wollen weniger für mehr geben ... Es war natürlich, zu urteilen, daß man im Austausch gleichen Wert für gleichen Wert gebe, sooft jedes der ausgetauschten Dinge an Wert demselben Quantum Geld gleich war ... Aber eine andre Betrachtung muß noch in die Rechnung eingehn; es fragt sich, ob wir beide einen Überfluß gegen etwas Notwendiges austauschen.“²¹

²¹ Condillac, „*Le Commerce et le Gouvernement*“ (1776), Édit. Daire et Molinari in den „*Mélanges d'Économie Politique*“, Paris 1847, p. 267, 291.

Question 680 Condillac writes: “It is not true that in an exchange of commodities we give value for value. On the contrary, each of the two contracting parties in every case gives a less for a greater value ... If we really exchanged equal values, neither party could make a profit. And yet they both gain, or ought to gain.” Show exactly where Condillac, in this passage, conflates use-value and exchange-value. [2011fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2005fa](#).

↑ The unspoken implication here is that the markup over the cost price, which one observes in capitalism, is the remuneration for the productive services which commodity trade performs by moving the goods into the hands of those who have more use-value for them.
 ↓ The conflation of use-value and exchange-value however is not the only error in the quote from Condillac.

We see in this passage how Condillac not only throws together use-value and exchange-value, but in a really childish manner assumes that, in a society in which the production of commodities is well de-

Man sieht, wie Condillac nicht nur Gebrauchswert und Tauschwert durcheinanderwirft, sondern wahrhaft kindlich einer Gesellschaft mit entwickelter Warenproduktion einen Zustand unterschiebt, worin der

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veloped, each producer produces his own means of subsistence, and throws into circulation only what is superfluous, the excess over his own requirements.²²

Already Condillac's friend Le Trosne gave some good critiques here:

²² Le Trosne therefore answers his friend Condillac quite correctly as follows: 'In a developed society absolutely nothing is superfluous.' At the same time he pokes fun at him with the remark, that, 'if both the persons who exchange receive more in return for an equal amount, and part with less in return for an equal amount, they both get the same.'

Produzent seine Subsistenzmittel selbst produziert und nur den Überschuß über den eigenen Bedarf, den Überfluß, in die Zirkulation wirft.²²

²² Le Trosne antwortet daher seinem Freunde Condillac sehr richtig: „In der entwickelten Gesellschaft gibt es überhaupt nichts Überflüssiges.“ Zugleich neckt er ihn mit der Glosse, daß, „wenn beide Austauscher gleich viel mehr für gleich viel weniger erhalten, sie beide gleich viel erhalten“.

Le Trosne's "tease" from footnote 22 can be found in [LT46, pp. 907, 904].

Question 681 *In what way does the following remark poke fun at Condillac? "If both the persons who exchange receive more in return for an equal amount, and part with less in return for an equal amount, then they both get the same."* 2012fa, 2008SP, 2004fa, 2003fa, 2002fa.

Despite Le Trosne's critique of Condillac, Condillac is cited by Roscher as his authority:

^{22 ctd} It is because Condillac has not the remotest idea of the nature of exchange-value that he has been chosen by Herr Professor Wilhelm Roscher as a suitable guarantor of the soundness of his own childish notions. See Roscher's Die Grundlagen der Nationalökonomie, 3rd edn, 1858.

Still, Condillac's argument is frequently repeated by modern economists, especially when they are trying to show that the exchange of commodities in its developed form, commerce, is productive of surplus-value. For instance,

'Commerce . . . adds value to products, for the same products in the hands of consumers are worth more than in the hands of producers, and it may strictly be considered an act of production.'²³

²³ S. P. Newman, Elements of Political Economy, Andover and New York, 1835, p. 175.

A merchant who is trying to justify his markup by the services of bringing the use-values together with those who need them, is confusing value and use-value:

But commodities are not paid for twice over, once on account of their use-value, and a second time on account of their value.

↑ According to the labor theory of value, the price of commodities does not depend on their use-values but only on their values. In other words, the buyer only has to pay for their

^{22 ctd} Weil Condillac noch nicht die geringste Ahnung von der Natur des Tauschwerths besitzt, ist er der passende Gewährsmann des Herrn Prof. Wilhelm Roscher für seine eignen Kinderbegriffe. Sieh dessen: „Die Grundlagen der Nationalökonomie“, Dritte Auflage, 1858.

Dennoch wird Condillacs Argument häufig bei modernen Ökonomen wiederholt, namentlich wenn es gilt, die entwickelte Gestalt des Warenaustausches, den Handel, als produktiv von Mehrwert darzustellen.

„Der Handel“ heißt es z.B. „fügt den Produkten Wert zu, denn dieselben Produkte haben mehr Wert in den Händen des Konsumenten als in den Händen des Produzenten, und er muß daher wörtlich (strictly) als Produktionsakt betrachtet werden.“²³

²³ S. P. Newman, „Elements of Polit. Econ.“, Andover and New York 1835, p. 175.

Aber man zahlt die Waren nicht doppelt, das eine Mal ihren Gebrauchswert und das andre Mal ihren Wert.

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value, i.e., he has to compensate the seller for the labor put into the commodity. What the buyer does with the commodity and how much use-value he derives from it is his private affair; he does not have to pay the seller again when he gets a lot of use-value out of it. What matters for the producer's decision how much to produce is the market price and his labor input. If he can fetch a good market price compared to the labor input, he will produce more. In the long run, this will tend to make prices proportional to labor input *through the competition between producers* even if the consumer likes the commodity so much that he or she would be willing to pay more for it. The fact that the buyer gains use-value is not reflected in the long-run price of the commodity, and can therefore not be a source of surplus-value.

Question 682 What does Marx mean when he says “commodities are not paid for twice over, once on account of their use-value, and a second time on account of their value”? [2013fa](#), [2012fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2005fa](#).

↑ This redescription of Newman's theory from the point of view of the labor theory of value shows strikingly what is wrong with it *if* the labor theory is right, but it is not an immanent critique. It only proves that Newman's theory *differs* from the labor theory of value; it is not yet proof that Newman's theory is false. In order to show that Newman's theory cannot be right Marx comes with a second argument, namely, he tries to show that Newman's theory is internally inconsistent:

And though the use-value of a commodity is more serviceable to the buyer than to the seller, its money-form is more so to the seller. Would he sell it otherwise? We might therefore just as well say that the buyer performs what is 'strictly' an 'act of production' by converting stockings, for example, into money.

Und wenn der Gebrauchswert der Ware dem Käufer nützlicher als dem Verkäufer, ist ihre Geldform dem Verkäufer nützlicher als dem Käufer. Würde er sie sonst verkaufen? Und so könnte ebensowohl gesagt werden, daß der Käufer wörtlich (strictly) einen „Produktionsakt“ vollbringt, indem er z.B. die Strümpfe des Kaufmanns in Geld verwandelt.

Marx ends his argument here, but the implication is clear: the merchant's activity of converting the buyer's money into stockings and the buyer's activity of converting the merchant's stockings into money cannot both be considered production, because each of these activities exactly undoes the other. It is a good thing that the buyer gets his socks and the merchant his money, and everybody is happier for it, but production it is not.

Question 683 How does Marx rebut the argument that exchange should be considered an act of production because the same products in the hands of consumers are worth more than in the hands of producers? [2010fa](#), [2005fa](#), [2004fa](#), [2003fa](#), [2001fa](#), [2000fa](#), [1998WI](#).

Question 684 If you exchange risky assets which benefit from diversification, so that both parties have the same expected value but lower variance after the exchange—is this an example of value created from exchange? [2010fa](#).

5.1.b. [Exchange of Nonequivalents]

After it has been shown impossible to create surplus-value through the exchange of equivalents, Marx asks now: is it possible to create surplus-value in circulation with the exchange of non-equivalents?

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170:4/o If commodities, or commodities and money, of equal exchange-value, and consequently equivalents, are exchanged, it is plain that no one extracts more value from circulation than he throws into it. There is no creation of surplus-value. In its pure form, the circulation process necessitates the exchange of equivalents, but in reality processes do not take place in their pure form. Let us therefore assume an exchange of non-equivalents.

174:4 Werden Waren oder Waren und Geld von gleichem Tauschwert, also Äquivalente ausgetauscht, so zieht offenbar keiner mehr Wert aus der Zirkulation heraus, als er in sie hineinwirft. Es findet dann keine Bildung von Mehrwert statt. In seiner reinen Form aber bedingt der Zirkulationsprozeß der Waren Austausch von Äquivalenten. Jedoch gehen die Dinge in der Wirklichkeit nicht rein zu. Unterstellen wir daher Austausch von Nicht-Äquivalenten.

Whenever nonequivalents are exchanged, the question is: *who* must buy above value and/or is forced to sell below value? Here Marx tries two different assumptions.

[Different Economic Roles]

First assumption: the distinction is drawn according to economic categories.

171:1 In any case the market for commodities is frequented only by owners of commodities, and the power which these persons exercise over each other is no other than the power of their commodities. The bodily difference of the commodities is the bodily driving force behind their exchange, and it makes buyers and sellers mutually dependent, because none of them possesses the object of his own need, and each holds in his own hand the object of another's need. Apart from this bodily difference in their use-values, there is only one other mark of distinction between commodities, the distinction between their natural form and their converted form, between commodities and money. Consequently, the owners of commodities can be differentiated only into sellers, those who own commodities, and buyers, those who own money.

174:5/o Jedenfalls steht auf dem Warenmarkt nur Warenbesitzer dem Warenbesitzer gegenüber, und die Macht, die diese Personen über einander ausüben, ist nur die Macht ihrer Waren. Die stoffliche Verschiedenheit der Waren ist das stoffliche Motiv des Austausches und macht die Warenbesitzer wechselseitig voneinander abhängig, indem keiner von ihnen den Gegenstand seines eignen Bedürfnisses und jeder von ihnen den Gegenstand des Bedürfnisses des andren in seiner Hand hält. Außer dieser stofflichen Verschiedenheit ihrer Gebrauchswerte besteht nur noch ein Unterschied unter den Waren, der Unterschied zwischen ihrer Naturalform und ihrer verwandelten Form, zwischen Ware und Geld. Und so unterscheiden sich die Warenbesitzer nur als Verkäufer, Besitzer von Ware, und als Käufer, Besitzer von Geld.

Marx first tries to use as criteria who can sell above or buy below value the distinctions provided by commodity-exchange itself. The only possible distinction between commodity owners is either the use-value they produce, or the distinction between buyer and seller. However, he rules out the distinction of use-values, apparently because it is a symmetric relationship, everyone depends on everyone else, and asks:

171:2 Suppose then that some inexplicable privilege allows the seller to sell his commodities above their value, to sell what is worth 100 for 110, therefore with a nominal price increase of 10 per cent. In this case the seller pockets a surplus-value of

175:1 Gesetzt nun, es sei durch irgendein unerklärliches Privilegium dem Verkäufer gegeben, die Ware über ihrem Werte zu verkaufen, zu 110, wenn sie 100 wert ist, also mit einem nominellen Preisaufschlage von 10%. Der Verkäufer kassiert also

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10. But after he has sold he becomes a buyer. A third owner of commodities now comes to him as a seller, and he too, for his part, enjoys the privilege of selling his commodities 10 per cent too dear. Our friend gained 10 as a seller only to lose it again as a buyer.²⁴ In fact the net result is that all owners of commodities sell their goods to each other at 10 per cent above their value, which is exactly the same as if they sold them at their true value. A universal and nominal price increase of this kind has the same effect as if the values of commodities had been expressed for example in silver instead of in gold. The money-names or prices of the commodities would rise, but the relations between their values would remain unchanged.

²⁴ ‘By the augmentation of the nominal value of the produce ... sellers [are] not enriched ... since what they gain as sellers, they precisely expend in the quality of buyers’ ([J. Gray], *The Essential Principles of the Wealth of Nations etc.*, London, 1797, p. 66).

What if all sellers can sell at too high prices? This makes no difference, since everybody becomes a buyer after he is a seller. Value *proportions* remain the same, although the absolute price level increases. The opposite assumption that the sellers sell too cheaply comes to the same result.

171:3 Let us make the opposite assumption, that the buyer has the privilege of purchasing commodities below their value. In this case we do not even need to recall that he is his turn will become a seller. He was a seller before he became a buyer; he had already lost 10 per cent as a seller before he gained 10 per cent as a buyer.²⁵ Everything remains as it was before.

²⁵ ‘If one is compelled to sell a quantity of a certain product for 18 livres when it has a value of 24 livres, then, when one employs the same amount of money in buying, one will receive for 18 livres the same quantity of the product as 24 livres would have bought otherwise’ (Le Trosne, *op. cit.*, p. 897).

172:1 The formation of surplus-value, and therefore the transformation of money into capital, can consequently be explained

einen Mehrwert von 10 ein. Aber nachdem er Verkäufer war, wird er Käufer. Ein dritter Warenbesitzer begegnet ihm jetzt als Verkäufer und genießt seinerseits das Privilegium, die Ware 10% zu teuer zu verkaufen. Unser Mann hat als Verkäufer 10 gewonnen, um als Käufer 10 zu verlieren.²⁴ Das Ganze kommt in der Tat darauf hinaus daß alle Warenbesitzer ihre Waren einander 10% über dem Wert verkaufen, was durchaus dasselbe ist, als ob sie die Waren zu ihren Werten verkauften. Ein solcher allgemeiner nomineller Preisaufschlag der Waren bringt dieselbe Wirkung hervor, als ob die Warenwerte z.B. in Silber statt in Gold geschätzt würden. Die Geldnamen, d.h. die Preise der Waren würden anschwellen, aber ihre Wertverhältnisse unverändert bleiben.

²⁴ „Durch die Heraufsetzung des nominellen Werts des Produkts ... werden die Verkäufer nicht reicher ... da sie genau das, was sie als Verkäufer gewinnen, in ihrer Eigenschaft als Käufer wieder ausgeben.“ ([J. Gray] *„The Essential Principles of the Wealth of Nations etc.“*, London 1797, p. 66.)

175:2 Unterstellen wir umgekehrt, es sei das Privilegium des Käufers, die Waren unter ihrem Wert zu kaufen. Hier ist es nicht einmal nötig zu erinnern, daß der Käufer wieder Verkäufer wird. Er war Verkäufer, bevor er Käufer ward. Er hat bereits 10% als Verkäufer verloren, bevor er 10% als Käufer gewinnt.²⁵ Alles bleibt wieder beim alten.

²⁵ „Wenn man für 18 Livres eine Menge eines bestimmten Erzeugnisses verkaufen muß, die 24 Livres wert ist, wird man, wenn man die gleiche Geldsumme zum Kauf verwendet, für 18 Livres ebenfalls so viel wie für 24 Livres erhalten.“ (Le Trosne, *l.c.* p. 897.)

175:3 Die Bildung von Mehrwert und daher die Verwandlung von Geld in Kapital, kann also weder dadurch erklärt wer-

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neither by assuming that commodities are sold above their value, nor by assuming that they are bought at less than their value.²⁶

²⁶ ‘A seller can normally only succeed in raising the prices of his commodities if he agrees to pay, by and large, more for the commodities of the other sellers; and for the same reason a consumer can normally only pay less for his purchases if he submits to a similar reduction in the prices of the things he sells’ (Mercier de la Rivière, op. cit., p. 555).

↑ This cannot be the explanation of capitalism. ↓ It is also of no avail to distinguish along economic criteria *outside circulation*, e.g., to distinguish between producers and consumers. In circulation, producers are sellers and consumers are buyers, i.e., we have the same case as before.

172:2–3 The problem is in no way simplified if alien matters are smuggled in, as Colonel Torrens did:

‘Effectual demand consists in the power and inclination (!), on the part of consumers, to give for commodities, either by immediate or circuitous barter, some greater portion of ... capital than their production costs.’²⁷

²⁷ R. Torrens, *An Essay on the Production of Wealth*, London, 1821, p. 349.

172:4 In circulation, producers and consumers confront each other only as buyers and sellers. To assert that the surplus-value acquired by the producer has its origin in the fact that consumers pay for commodities more than their value is only to disguise the following simple phrase: the owner of commodities possesses, as a seller, the privilege of selling too dear. The seller is either the producer or the representative of the producer of his commodities, but the buyer is no less either the producer or the representative of the producer of the commodities represented by his money. One producer is therefore confronted with another producer. The distinction between them is that one buys and the other sells. One does not throw any light on the origin of surplus-value if one says that the owner of the commodities sells them at more than their value, under the designation of producer, and pays

den, daß die Verkäufer die Waren über ihrem Werte verkaufen, noch dadurch, daß die Käufer sie unter ihrem Werte kaufen.²⁶

²⁶ „Kein Verkäufer kann daher gewöhnlich seine Waren im Preis heraufsetzen, ohne ebenso die Waren der anderen Verkäufer teurer bezahlen zu müssen; und aus dem gleichen Grunde kann kein Verbraucher gewöhnlich billiger einkaufen, ohne ebenso die Waren, die er verkauft, im Preise herabsetzen zu müssen.“ (Mercier de la Rivière, l.c. p. 555.)

176:1–2 Das Problem wird in keiner Weise dadurch vereinfacht, daß man fremde Beziehungen einschmuggelt, also etwa mit Oberst Torrens sagt:

„Die effektive Nachfrage besteht in dem Vermögen und der Neigung (!) der Konsumenten, sei es durch unmittelbaren oder vermittelten Austausch, für Waren eine gewisse größere Portion von allen Ingredienzien des Kapitals zu geben, als ihre Produktion kostet.“²⁷

²⁷ R. Torrens, „*An Essay on the Production of Wealth*“, London 1821, p. 349.

176:3 In der Zirkulation stehen sich Produzenten und Konsumenten nur als Verkäufer und Käufer gegenüber. Behaupten, der Mehrwert für den Produzenten entspringe daraus, daß die Konsumenten die Ware über den Wert zahlen, heißt nur den einfachen Satz maskieren: Der Warenbesitzer besitzt als Verkäufer das Privilegium, zu teuer zu verkaufen. Der Verkäufer hat die Ware selbst produziert oder vertritt ihren Produzenten, aber der Käufer hat nicht minder die in seinem Gelde dargestellte Ware selbst produziert oder vertritt ihren Produzenten. Es steht also Produzent dem Produzenten gegenüber. Was sie unterscheidet, ist, daß der eine kauft und der andre verkauft. Es bringt uns keinen Schritt weiter, daß der Warenbesitzer unter dem Namen Produzent die Ware über ihrem Werte verkauft und unter dem Namen Konsument sie zu teuer zahlt.²⁸

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too much for them, under the designation of consumer.²⁸

The footnote makes the same point:

²⁸ ‘The idea of profits being paid by the consumers, is, assuredly, very absurd. Who are the consumers?’ (G. Ramsay, *An Essay on the Distribution of Wealth*, Edinburgh, 1836, p. 183).

²⁸ „Der Gedanke, daß die Profite von den Konsumenten gezahlt werden, ist sicher völlig absurd. Wer sind die Konsumenten?“ (G. Ramsay, *„An Essay on the Distribution of Wealth“*, Edinburgh 1836, p. 183.)

Question 686 Ramsay says: “The idea of profits being paid by the consumers is, assuredly, very absurd. Who are the consumers?” The question “who are the consumers?” is a rhetorical question, obviously Ramsay had an answer in mind. Which answer? [2011fa](#), [2010fa](#), [2009fa](#), [2007fa](#).

↑ Marx makes here explicitly the assumption of Simple commodity production. (He will say this again in [174:3/o](#).) ↓ If one comes to other conclusions than he one must have a different social structure in mind.

172:5/o Those who most consistently uphold the illusion that surplus-value has its origin in a nominal rise of prices, or in the privilege which the seller has of selling too dear, assume therefore that there exists a class of buyers who do not sell, i.e. a class of consumers who do not produce.

176:4/o Die konsequenten Vertreter der Illusion, daß der Mehrwert aus einem nominellen Preiszuschlag entspringt oder aus dem Privilegium des Verkäufers, die Ware zu teuer zu verkaufen, unterstellen daher eine Klasse, die nur kauft, ohne zu verkaufen, also auch nur konsumiert ohne zu produzieren.

↑ Can the theory that profits come from inflated prices be salvaged by the assumption that there is a class which consumes but does not produce? Marx says no. ↓ These nonproducers must have received their money by theft or legalized or institutionalized theft. Selling to them at an inflated price simply recaptures part of this theft.

The existence of such a class cannot yet be explained from the standpoint we have reached at present, that of simple circulation. But let us anticipate. The money with which such a class is constantly making purchases must constantly flow into its coffers without any exchange, gratis, whether by might or by right, from the pockets of the commodity-owners themselves. To sell commodities at more than their value to such a class is only to get back again, by swindling, a part of the money previously handed over for nothing.²⁹

Die Existenz einer solchen Klasse ist von unsrem bisher erreichten Standpunkt, dem der einfachen Zirkulation, noch unerklärlich. Aber greifen wir vor. Das Geld, womit eine solche Klasse beständig kauft, muß ihr beständig, ohne Austausch, umsonst, auf beliebige Rechts- und Gewaltstitel hin, von den Warenbesitzern selbst zufließen. Dieser Klasse die Waren über dem Wert verkaufen, heißt nur, umsonst weggegebenes Geld sich zum Teil wieder zurückschwindeln.²⁹

²⁹ ‘When a man is in want of a demand, does Mr Malthus recommend him to pay some other person to take off his goods?’ is a question put by an infuriated Ricardian to Malthus, who, like his disciple Parson Chalmers, economically glorifies this class of simple buyers or consumers. See *An Inquiry into Those Principles, Respect-*

²⁹ „Wenn es jemand an Nachfrage mangelt, rät ihm dann Herr Malthus, eine andre Person zu bezahlen. damit diese ihm seine Waren abnehme?“ fragt ein entrüsteter Ricardianer den Malthus, der wie sein Schüler, der Pfaffe Chalmers, die Klasse von bloßen Käufern oder Konsumenten ökonomisch verherrlicht. Sieh: „An Inquiry into those

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ing the Nature of Demand and the Necessity of Consumption, Lately Advocated by Mr. Malthus etc., London, 1821, p. 55.

principles, respecting the Nature of Demand and the Necessity of Consumption, lately advocated by Mr. Malthus etc.“, London 1821, p. 55.

This is not merely a theoretical possibility but has a fitting historical example with the towns in Asia Minor (Turkey). The tributes which the provinces had to pay to Rome are an institutionalized form of theft.

Thus, the towns of Asia Minor paid a yearly money tribute to ancient Rome. With this money Rome bought commodities from them and bought them too expensively. The provincials cheated the Romans, and in this way swindled back from their conquerors a portion of the tribute in the course of trade. Yet, for all that, the provincials remained the ones who were cheated. Their commodities were paid to them with their own money.

So zahlten die kleinasiatischen Städte jährlichen Geldtribut an das alte Rom. Mit diesem Geld kaufte Rom Waren von ihnen und kaufte sie zu teuer. Die Kleinasiaten prellten die Römer, indem sie den Eroberern einen Teil des Tributs wieder abluchsten auf dem Wege des Handels. Aber dennoch blieben die Kleinasiaten die Geprellten. Ihre Waren wurden ihnen nach wie vor mit ihrem eigenen Gelde gezahlt.

This is not the same mechanism that we see today.

That is not the way to get rich or to create surplus-value.

Es ist dies keine Methode der Bereicherung oder der Bildung von Mehrwert.

Question 688 *Can capitalism be explained by the workers not being able to sell their commodity, namely labor, at its value?*

[Differences Between Individuals]

Next the distinction is drawn not along economic categories but simply between different individuals.

173:1 Let us therefore keep within the limits of the exchange of commodities, where sellers are buyers, and buyers are sellers. Our perplexity may perhaps have arisen from conceiving people merely as personified categories, instead of as individuals.

177:1 Halten wir uns also innerhalb der Schranken des Warenaustausches, wo Verkäufer Käufer und Käufer Verkäufer sind. Unsre Verlegenheit stammt vielleicht daher, daß wir die Personen nur als personifizierte Kategorien, nicht individuell, gefaßt haben.

173:2 A may be clever enough to get the advantage of B and C without their being able to take their revenge. A sells wine worth £40 to B, and obtains from him in exchange corn to the value of £50. A has converted his £40 into £50, has made more money out of less, and has transformed his commodities into capital.

177:2 Warenbesitzer A mag so pffiffig sein, seine Kollegen B oder C übers Ohr zu hauen, während sie trotz des besten Willens die Revanche schuldig bleiben. A verkauft Wein zum Wert von 40 Pfd.St. an B und erwirbt im Austausch Getreide zum Wert von 50 Pfd.St. A hat seine 40 Pfd.St. in 50 Pfd. St. verwandelt, mehr Geld aus weniger Geld gemacht und seine Ware in Kapital verwandelt.

↑ This seems to be a situation in which surplus-value is generated in circulation. ↓ But it is a zero-sum game, i.e., only the redistribution of already existing value, not the generation of new surplus-value:

Let us examine this a little more closely. Before the exchange we had £40 of wine in

Sehn wir näher zu. Vor dem Austausch hatten wir für 40 Pfd.St. Wein in der Hand von

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the hands of *A*, and £ 50 worth of corn in those of *B*, a total value of £ 90. After the exchange we still have the same total value of £ 90. The value in circulation has not increased by one iota; all that has changed is its distribution between *A* and *B*. What appears on one side as a loss of value, appears on the other side as surplus-value; what appears on one side as a minus appears on the other side as a plus. The same change would have taken place if *A*, without the disguise provided by the exchange, had directly stolen the £ 10 from *B*. The sum of the values in circulation can clearly not be augmented by any change in their distribution, any more than a Jew can increase the quantity of the precious metals in a country by selling a farthing from the time of Queen Anne for a guinea. The capitalist class of a given country, taken as a whole, cannot defraud itself.³⁰

³⁰ Destutt de Tracy, although, or perhaps because, he was a Membre de l'Institut, held the opposite view. The industrial capitalists, he says, make profits because 'they all sell for more than it has cost to produce. And to whom do they sell? In the first instance to one another' (op. cit., p. 239).

Summary:

174:1 However much we twist and turn, the final conclusion remains the same. If equivalents are exchanged, no surplus-value results, and if non-equivalents are exchanged, we still have no surplus-value.³¹ Circulation, or the exchange of commodities, creates no value.³²

³¹ 'The exchange of two equal values neither increases nor diminishes the amount of the values present in society. Equally, the exchange of two unequal values... effects no change in the sum of social values, although it adds to the wealth of one person what it removes from the wealth of another' (J. B. Say, op. cit., Vol. 2, pp. 443–4). Say, who is of course untroubled by the consequences of this statement, borrows it almost word for word from the Physiocrats. The following example will show how Monsieur Say exploited the

A und für 50 Pfd.St. Getreide in der Hand von *B*, Gesamtwert von 90 Pfd.St. Nach dem Austausch haben wir denselben Gesamtwert von 90 Pfd.St. Der zirkulierende Wert hat sich um kein Atom vergrößert, seine Verteilung zwischen *A* und *B* hat sich verändert. Auf der einen Seite erscheint als Mehrwert, was auf der andren Minderwert ist, auf der einen Seite als Plus, was auf der andren als Minus. Derselbe Wechsel hätte sich ereignet, wenn *A*, ohne die verhüllende Form des Austausches, dem *B* 10 Pfd.St. direkt gestohlen hätte. Die Summe der zirkulierenden Werte kann offenbar durch keinen Wechsel in ihrer Verteilung vermehrt werden, sowenig wie ein Jude die Masse der edlen Metalle in einem Lande dadurch vermehrt, daß er einen Farthing aus der Zeit der Königin Anna für eine Guinee verkauft. Die Gesamtheit der Kapitalistenklasse eines Landes kann sich nicht selbst übervorteilen.³⁰

³⁰ Destutt de Tracy, obgleich—vielleicht weil—Membre de l'Institut, war umgekehrter Ansicht. Die industriellen Kapitalisten, sagt er, machen dadurch ihre Profite, daß „sie alles teurer verkaufen, als es gekostet hat zu produzieren. Und an wen verkaufen sie? Erstens aneinander.“ (l.c. p. 239.)

177:3/o Man mag sich also drehen und wenden, wie man will, das Fazit bleibt dasselbe. Werden Äquivalente ausgetauscht, so entsteht kein Mehrwert, und werden Nicht-Äquivalente ausgetauscht, so entsteht auch kein Mehrwert.³¹ Die Zirkulation oder der Warenaustausch schafft keinen Wert.³²

³¹ „Der Austausch von zwei gleichen Werten vermehrt weder die Masse der in der Gesellschaft vorhandenen Werte, noch vermindert er sie. Der Austausch zweier ungleicher Werte ... ändert ebenfalls nichts an der Summe der gesellschaftlichen Werte, da er dem Vermögen des einen zufügt, was er dem Vermögen des anderen wegnimmt.“ (J. B. Say, l.c., t. II, p. 443, 444.) Say, natürlich unbekümmert um die Konsequenzen dieses Satzes, entlehnt ihn ziemlich wörtlich den Physiokraten. Die Art, wie er ihre zu sei-

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writings of the Physiocrats, in his day quite forgotten, for the purpose of increasing the ‘value’ of his own. His ‘most celebrated’ saying, ‘Products can only be bought with products’ (op. cit., Vol. 2, p. 441), runs as follows in the original Physiocratic work: ‘Products can only be paid for with products’ (Le Trosne, op. cit., p. 899).

³² ‘Exchange confers no value at all upon products’ (F. Wayland, *The Elements of Political Economy*, Boston, 1843, p. 169).

ner Zeit verschollenen Schriften zur Vermehrung seines eigenen „Wertes“ ausgebeutet hat, zeige folgendes Beispiel. Der „berühmteste“ Satz des Monsieur Say: „Man kann Produkte nur mit Produkten kaufen“ (l.c., t. II, p. 438), lautet im physiokratischen Original: „Erzeugnisse lassen sich nur mit Erzeugnissen bezahlen.“ (Le Trosne, l.c. p. 899.)

³² „Der Austausch überträgt keinerlei Wert auf die Produkte.“ (F. Wayland, „*The Elements of Pol. Econ.*“, Boston 1843, p. 168.)

Question 689 *Why can surplus-value not be explained by the fact that the capitalists sell their product at inflated prices? Does this mean that it is not in the interest of the capitalists to violate the law of value?* [2013fa](#), [2009fa](#), [2001fa](#), [2000fa](#).

This argument has another implication which Marx does not point out here explicitly, but which he is going to use later: Deviations of values from prices cannot turn a static situation into a dynamic one. Equally, it cannot turn a dynamic system into a static one. The dynamic must therefore be explainable even if the assumption is made that prices are strictly proportional to values.

5.1.c. [Methodological Interlude]

This concludes Marx’s extended argument that value cannot be created in circulation. Next comes a methodological interlude: this is why we cannot begin our investigation of capitalism with the historically earliest forms of capital, merchant capital or usury capital:

174:2 It can be understood, therefore, why, in our analysis of the primary form of capital, the form in which it determines the economic organization of modern society, we have entirely left out of consideration its well-known and so to speak antediluvian forms, merchants’ capital and usurers’ capital.

↑ “antediluvian” means “before the deluge”—and by “deluge” Marx probably meant the process of original accumulation which pried the workers from the land and set them free as wage-laborers. Although merchant’s capital is the purest form of $M - C - M'$, it cannot be Marx’s point of departure when he investigates the general formula of capital.

174:3/o The form $M - C - M$, buying in order to sell dearer, is at its purest in genuine merchants’ capital. But the whole of this movement takes place within the sphere of circulation. Since, however, it is impossible, by circulation alone, to explain the transformation of money into capital, and the formation of surplus-value, merchants’ capital appears to be an impossibility, as long as equivalents are exchanged;³³ it ap-

178:1 Man versteht daher, warum in unserer Analyse der Grundform des Kapitals, der Form, worin es die ökonomische Organisation der modernen Gesellschaft bestimmt, seine populären und sozusagen antediluvianischen Gestalten, Handelskapital und Wucherkapital, zunächst gänzlich unberücksichtigt bleiben.

178:2/o Im eigentlichen Handelskapital erscheint die Form $G - W - G'$, kaufen, um teurer zu verkaufen, am reinsten. Andererseits geht seine ganze Bewegung innerhalb der Zirkulationssphäre vor. Da es aber unmöglich ist, aus der Zirkulation selbst die Verwandlung von Geld in Kapital, die Bildung von Mehrwert zu erklären, erscheint das Handelskapital unmöglich, sobald Äquivalente ausgetauscht werden,³³

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pears, therefore, that it can only be derived from the twofold advantage gained, over both the selling and the buying producers, by the merchant who parasitically inserts himself between them. It is in this sense that Franklin says ‘war is robbery, commerce is cheating’.³⁴

³³ ‘Under the rule of invariable equivalents commerce would be impossible’ (G. Opdyke, *A Treatise on Political Economy*, New York, 1851, pp. 66–9). ‘The difference between real value and exchange-value is based on one fact—namely, that the value of a thing differs from the so-called equivalent given for it in trade, i.e. that the equivalent is not an equivalent’ (F. Engels, op. cit., p. 96) [English translation, p. 427].

³⁴ Benjamin Franklin, *Positions to be Examined, Concerning National Wealth*, in *Works*, Vol. 2, ed. Sparks, p. 376.

daher nur ableitbar aus der doppelseitigen Übervorteilung der kaufenden und verkauften Warenproduzenten durch den sich parasitisch zwischen sie schiebenden Kaufmann. In diesem Sinn sagt Franklin: „Krieg ist Raub, Handel ist Prellerei.“³⁴

³³ „Unter der Herrschaft unveränderlicher Äquivalente würde der Handel unmöglich sein.“ (G. Opdyke, „A Treatise on polit. Economy“, New York 1852, p. 66 bis 69.) „Dem Unterschiede zwischen Realwert und Tauschwert liegt eine Tatsache zum Grunde—nämlich daß der Wert einer Sache verschieden ist von dem im Handel für sie gegebenen sogenannten Äquivalent, d.h., daß dies Äquivalent kein Äquivalent ist.“ (F. Engels, l.c. p. 95, 96.)

³⁴ Benjamin Franklin, „Works“, vol. II, edit. Sparks in „Positions to be examined concerning National Wealth“, [p. 376.]

Question 690 *Although commercial capital is $M - C - M'$ in its purest form, it does not have a central place in Marx's derivation of capital. Why not?* 2008fa, 2004fa, 2003fa.

↓ Modern commercial capital is a different matter: its profits do not derive from buying below and selling above value. Marx will explain in volume 3 of *Capital* where its profits come from. Right now, the basis for such an explanation has not yet been laid:

If the valorization of merchants' capital is not to be explained merely by frauds practised on the producers of commodities, a long series of intermediate steps would be necessary, which are as yet entirely absent, since here our only assumption is the circulation of commodities and its simple elements.

Soll die Verwertung des Handelskapitals nicht aus bloßer Prellerei der Warenproduzenten erklärt werden, so gehört dazu eine lange Reihe von Mittelgliedern, die hier, wo die Warencirkulation und ihre einfachen Momente unsere einzige Voraussetzung bilden, noch gänzlich fehlt.

↓ What Marx said about merchant capital applies even more to usurer's capital:

175:1–2 What we have said with reference to merchants' capital applies still more to usurers' capital. In merchants' capital the two extremes, the money which is thrown upon the market and the augmented money which is withdrawn from the market, are mediated through a purchase and a sale, through the movement of circulation. In usurers' capital, this mediation is missing. The form $M - C - M'$ is shortened so that only the unmediated extremes $M - M'$ remain, money which is exchanged for more money—a form which contradicts the na-

179:1 Was vom Handelskapital, gilt noch mehr vom Wucherkapital. Im Handelskapital sind die Extreme, das Geld, das auf den Markt geworfen, und das vermehrte Geld, das dem Markt entzogen wird, wenigstens vermittelt durch Kauf und Verkauf, durch die Bewegung der Zirkulation. Im Wucherkapital ist die Form $G - W - G'$ abgekürzt auf die unvermittelten Extreme $G - G'$, Geld, das sich gegen mehr Geld austauscht, eine der Natur des Geldes widersprechende und daher vom Standpunkt des Warenaustausches unerklärliche Form.

5.2. [Surplus-Value Outside Circulation]

ture of money and therefore cannot be explained from the standpoint of the exchange of commodities. This is why Aristotle says:

‘Since chrematistics is a double science, one part belonging to commerce, the other to economics, the latter being necessary and praiseworthy, the former based on circulation and with justice disapproved (for it is not based on Nature, but on mutual cheating), the usurer is most rightly hated, because money itself is the source of his gain, and is not used for the purposes for which it was invented. For it originated for the exchange of commodities, but interest makes out of money, more money. Hence its name.’ (τόκος, interest and offspring.) ‘For the offspring resembles the parent. But interest is money, so that of all modes of making a living, this is the most contrary to Nature.’³⁵

³⁵ Aristotle, op. cit., c. 10 [english translation, para. 1258b].

175:3 In the course of our investigation, we shall find that both merchants’ capital and interest-bearing capital are derivative forms, and at the same time it will become clear why, historically, these two forms appear before the modern primary form of capital.

Daher Aristoteles:

„Da die Chrematistik eine doppelte ist, die eine zum Handel, die andre zur Ökonomik gehörig, die letztere notwendig und lobenswert, die erstere auf die Zirkulation gegründet und mit Recht getadelt (denn sie beruht nicht auf der Natur, sondern auf wechselseitiger Prellerei), so ist der Wucher mit vollstem Recht verhaßt, weil das Geld selbst hier die Quelle des Erwerbs und nicht dazu gebraucht wird, wozu es erfunden ward. Denn für den Warenaustausch entstand es, der Zins aber macht aus Geld mehr Geld. Daher auch sein Name“ (τόκος Zins und Geborenes). „Denn die Geborenen sind den Erzeugern ähnlich. Der Zins aber ist Geld von Geld, so daß von allen Erwerbszweigen dieser der naturwidrigste.“³⁵

³⁵ Arist[oteles], l.c., c. 10, [p. 17].

179:3 Wie das Handelskapital werden wir das zinstragende Kapital im Verlauf unsrer Untersuchung als abgeleitete Formen vorfinden und zugleich sehn, warum sie historisch vor der modernen Grundform des Kapitals erscheinen.

Question 691 *Why are the ancient merchant capitalists and usurers not useful examples for understanding modern capitalism?* 2008fa, 2003fa.

Question 692 *Why did merchant’s capital and interest-bearing capital appear, historically, before the modern primary form of capital?* 2013fa.

5.2. [Surplus-Value Outside Circulation]

Can surplus-value be created outside circulation? Marx argues that this too is impossible.

175:4/o We have shown that surplus-value cannot arise from circulation. For surplus-value to be formed, something must take place behind the back of circulation which is not visible in the circulation itself.³⁶ But can surplus-value originate anywhere other than in circulation?

179:4/o Es hat sich gezeigt, daß der Mehrwert nicht aus der Zirkulation entspringen kann, bei seiner Bildung also etwas hinter ihrem Rücken vorgehn muß, das in ihr selbst unsichtbar ist.³⁶ Kann aber der Mehrwert anderswoher entspringen als aus der Zirkulation?

In the next sentence, Marx reiterates that no relations between people are admitted other than those of commodity-owners. E.g., people are not allowed to take things away directly from others. What remains is the relation of everybody to his own commodity:

5. Contradictions of $M-C-M$

Circulation is the sum total of all the mutual relations of commodity-owners. Outside it, the commodity-owner only stands in a relation to his own commodity. As far as the value of that commodity is concerned, the relation is limited to this, that the commodity contains a quantity of his own labor which is measured according to definite social laws. This quantity of labor is expressed by the magnitude of the value of his commodity, and since the value is reckoned in money of account, this quantity is also expressed by the price, £ 10 for instance. But his labor does not receive a double representation: it is not represented both in the value of the commodity and in an excess quantity over and above that value, it is not represented in a price of 10 which is simultaneously a price of 11, i.e. in a value which is greater than itself. The commodity-owner can create value by his labor, but he cannot create values which can valorize themselves. He can increase the value of his commodity by adding fresh labor, and therefore more value, to the value in hand, by making leather into boots, for instance. The same material now has more value, because it contains a greater quantity of labor. The boots have therefore more value than the leather, but the value of the leather remains what it was. It has not valorized itself, it has not annexed surplus-value during the making of the boots. It is therefore impossible that, outside the sphere of circulation, a producer of commodities can, without coming into contact with other commodity-owners, valorize value, and consequently transform money or commodities into capital.

³⁶ 'Profit, in the usual condition of the market, is not made by exchanging. Had it not existed before, neither could it after that transaction' (Ramsay, op. cit., p. 184).

Die Zirkulation ist die Summe aller Wechselbeziehungen der Warenbesitzer. Außerhalb derselben steht der Warenbesitzer nur noch in Beziehung zu seiner eignen Ware. Was ihren Wert angeht, beschränkt sich das Verhältnis darauf, daß sie ein nach bestimmten gesellschaftlichen Gesetzen gemessenes Quantum seiner eignen Arbeit enthält. Dies Quantum Arbeit drückt sich aus in der Wertgröße seiner Ware, und, da sich Wertgröße in Rechengeld darstellt, in einem Preise von z.B. 10 Pfd.St. Aber seine Arbeit stellt sich nicht dar im Werte der Ware und einem Überschuß über ihrem eignen Wert, nicht in einem Preise von 10, der zugleich ein Preis von 11, nicht in einem Wert, der größer als er selbst ist. Der Warenbesitzer kann durch seine Arbeit Werte bilden, aber keine sich verwertenden Werte. Er kann den Wert einer Ware erhöhen, indem er vorhandnem Wert neuen Wert durch neue Arbeit zusetzt, z.B. aus Leder Stiefel macht. Derselbe Stoff hat jetzt mehr Wert, weil er ein größeres Arbeitsquantum enthält. Der Stiefel hat daher mehr Wert als das Leder, aber der Wert des Leders ist geblieben, was er war. Er hat sich nicht verwertet, nicht während der Stiefelfabrikation einen Mehrwert angesetzt. Es ist also unmöglich, daß der Warenproduzent außerhalb der Zirkulationssphäre, ohne mit andren Warenbesitzern in Berührung zu treten, Wert verwerte und daher Geld oder Ware in Kapital verwandle.

³⁶ „Unter den üblichen Bedingungen des Marktes wird Profit nicht durch Austausch gemacht. Wäre er nicht vorher vorhanden gewesen, so könnte er es auch nicht nach dieser Transaktion sein.“

If someone adds value to an object through his own labor, then this is not *self*-expansion of the value that is already there, because the value is not the subject. Self-expansion of value takes place only if the value itself increases itself.

Question 693 *What is the difference between a shoemaker, who adds to the value of his*

5.3. [Both in and outside Circulation]

leather by turning the leather into shoes, and a capitalist, who adds to the value of his money by investing it? [2013fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [1998WI](#).

Question 694 A baker producing for the market, who owns his own tools and works alone, buys flour and sells bread at a price higher than the flour, is he performing the act $M - C - M'$ which valorizes his capital? [2008fa](#), [2000fa](#), [1998WI](#).

Question 695 Does surplus-value come from the capitalist working “smarter” than the simple commodity producer? [2011fa](#).

5.3. [Both in and outside Circulation]

Since both possibilities are ruled out—surplus-value cannot be created inside circulation, and also not outside circulation, one should expect the conclusion to be: surplus-value cannot be created at all on the basis of commodity production. However Marx surprises us with a third alternative:

176:1 Capital cannot therefore arise from circulation, and it is equally impossible for it to arise apart from circulation. It must have its origin both in circulation and not in circulation.

180:1 Kapital kann also nicht aus der Zirkulation entspringen, und es kann ebenso wenig aus der Zirkulation nicht entspringen. Es muß zugleich in ihr und nicht in ihr entspringen.

This is a similar maneuver as in the commodity fetishism section [82:1](#) where Marx first sounds as if all alternatives gave a negative result, and then comes with a new alternative.

↑ Earlier in this chapter, Marx showed that surplus-value cannot have its origin in circulation *alone*, and it cannot have its origin *completely* outside of circulation. Any process creating surplus-value must therefore be in part inside and in part outside circulation.

176:2 We therefore have a double result.

180:2 Ein doppeltes Resultat hat sich also ergeben.

The condition “in and outside circulation” is only one of the two results of this chapter. The other result is that surplus-value is not a violation of the laws of the commodity, i.e., it must be explainable even if all prices are equal to values.

176:3/o The transformation of money into capital has to be developed on the basis of the laws immanent to the exchange of commodities, in such a way that the exchange of equivalents is taken as starting point.³⁷

180:3/o Die Verwandlung des Geldes in Kapital ist auf Grundlage dem Warenaustausch immanenter Gesetze zu entwickeln, so daß der Austausch von Äquivalenten als Ausgangspunkt gilt.³⁷

↑ This requirement can be justified by Marx’s earlier arguments that the exchange of equivalents is the “pure” form of the commodity circulation. For instance, in [168:3/o](#) Marx argues that circulation is in essence a change of form which in its pure state does not entail a change in quantity; in [168:3/o](#) he remarks that even vulgar economy usually assumes, in order to consider the phenomena in their pure form, that demand and supply coincide; and both [168:3/o](#) and [170:4/o](#) reiterate that in its pure form commodity exchange is the exchange of equivalents. In his Notes to Wagner, [\[mecw24\]536:3–5](#), Marx says that this assumption is a scientific necessity. ↓ Besides, footnote 37 brings some good additional arguments:

³⁷ The reader will see from the foregoing discussion that the meaning of this statement is only as follows: the formation of capital must be

³⁷ Nach der gegebenen Auseinandersetzung versteht der Leser, daß dies nur heißt: Die Kapitalbildung muß möglich sein, auch wenn der Wa-

5. Contradictions of $M-C-M$

possible even though the price and the value of a commodity be the same, for it cannot be explained by referring to any divergence between price and value. If prices actually differ from values, we must first reduce the former to the latter, i.e. disregard this situation as an accidental one in order to observe the phenomenon of the formation of capital on the basis of the exchange of commodities in its purity, and to prevent our observations from being interfered with by disturbing incidental circumstances which are irrelevant to the actual course of the process. We know moreover that this reduction is not limited to the field of science. The continual oscillations in prices, their rise and fall, compensate each other, cancel each other out, and carry out their own reduction to an average price which is their internal regulator. This average price is the guiding light of the merchant or the manufacturer in every undertaking of a lengthy nature. The manufacturer knows that if a long period of time is considered, commodities are sold neither over nor under, but at, their average price. If, therefore, he were at all interested in disinterested thinking, he would formulate the problem of the formation of capital as follows: How can we account for the origin of capital on the assumption that prices are regulated by the average price i.e. ultimately by the value of the commodities? I say 'ultimately' because average prices do not directly coincide with the values of commodities, as Adam Smith, Ricardo, and others believe.

↑ The equality of prices and values is an important assumption which will come up again and again; 318:1/o is perhaps the most prominent place, other places are 519:4, , and 582:1/o.

Question 696 *Why does Marx make the assumption throughout Volume I of Capital that the prices of all commodities are quantitatively equal to their values?* 2004fa, 2003fa, 2002fa, 1999SP, 1997ut, 1997WI, 1996ut, 1995ut.

↓ The process under investigation, by which value is turned into more value, must therefore satisfy the following conditions:

The money-owner, who is as yet only a capitalist in larval form, must buy his commodities at their value, sell them at their value, and yet at the end of the process withdraw more value from circulation than he threw into it at the beginning. His emergence as a butterfly must, and yet must not, take place in the sphere of circulation. These are the conditions of the problem. Hic Rhodus, hic salta!

renpreis gleich dem Warenwert. Sie kann nicht aus der Abweichung der Warenpreise von den Warenwerten erklärt werden. Weichen die Preise von den Werten wirklich ab, so muß man sie erst auf die letzteren reduzieren, d.h. von diesem Umstande als einem zufälligen absehn, um das Phänomen der Kapitalbildung auf Grundlage des Warenaustauschs rein vor sich zu haben und in seiner Beobachtung nicht durch störende und dem eigentlichen Verlauf fremde Nebenumstände verwirrt zu werden. Man weiß übrigens, daß diese Reduktion keineswegs eine bloß wissenschaftliche Prozedur ist. Die beständigen Oscillationen der Marktpreise, ihr Steigen und Sinken, kompensieren sich, heben sich wechselseitig auf und reduzieren sich selbst zum Durchschnittspreis als ihrer inneren Regel. Diese bildet den Leitstern z.B. des Kaufmanns oder des Industriellen in jeder Unternehmung, die längeren Zeitraum umfaßt. Er weiß also, daß, eine längere Periode im ganzen betrachtet, die Waren wirklich weder unter noch über, sondern zu ihrem Durchschnittspreis verkauft werden. Wäre interesseloses Denken also überhaupt sein Interesse, so müßte er sich das Problem der Kapitalbildung so stellen: Wie kann Kapital entstehen bei der Regelung der Preise durch den Durchschnittspreis, d.h. in letzter Instanz durch den Wert der Ware? Ich sage „in letzter Instanz“, weil die Durchschnittspreise nicht direkt mit den Wertgrößen der Waren zusammenfallen, wie A. Smith, Ricardo usw. glauben.

Unser nur noch als Kapitalistenraupe vorhandener Geldbesitzer muß die Waren zu ihrem Wert kaufen, zu ihrem Wert verkaufen und dennoch am Ende des Prozesses mehr Wert herausziehn, als er hineinwarf. Seine Schmetterlingsentfaltung muß in der Zirkulationssphäre und muß nicht in der Zirkulationssphäre vorgehn. Dies sind die Bedingungen des Problems. Hic Rhodus, hic salta!

5.3. [Both in and outside Circulation]

“Hic Rhodus hic salta” (Rhodes is here, jump here) is the reply made, in one of Aesop’s fables, to a braggart who claimed he had once made an immense jump in Rhodes, and that he could produce witnesses. Someone replied “hic Rhodus, hic salta,” meaning that there was no need for witnesses, since the athlete could demonstrate the jump here and now. Marx’s use of this punchline differs in several respects from its original meaning.

- The capitalist is not a braggard who *pretends* to be able to do something which he cannot do. On the contrary, it is obvious that the capitalist is able to jump.
- Not only is the capitalist indeed able to jump, but there is also evidence for this, i.e., the witnesses from Aesop’s fable exist as well. We see the results of his jumps all around us.
- The only issue is that he makes his jumps in a secret place, in “Rhodes,” so that we do not know *how* the results are generated which we see. “Hic Rhodus, hic salta” means that we want to see the capitalist’s athletics directly, before our eyes.
- “Hic Rhodus, hic salta” is not a request that the capitalist to do anything differently; the challenge is on us, on our analytical capabilities, to understand how the capitalist does it.

The transition from simple circulation to capital in chapters Four and Five was based on a second-order argument. Marx started with the general observation that there are people in a capitalist society who do $M - C - M'$, and from this Marx could derive that in this activity, capitalists are presiding over the self-valorization process of value, and they have made this process also their individual motive. Value, therefore, in capitalism, is not a static but a dynamic substance, it moves, it increases itself. But we have not yet figured out *how* value increases itself. Chapter Five has given some indirect and mainly negative clues about it: it cannot happen in circulation alone, and it cannot be based on unequal exchange. This is how far we got with second-order arguments, i.e., with asking what must be the case for a large scale $M - C - M'$ to be possible scale as we see it in capitalism. Now we have to look around and see whether we can find a mechanism that generates the phenomena which we see. This is the “hic Rhodus hic salta” moment for us. We are already halfway there with our search; the criteria laid out in the last passage we read have narrowed down our search considerably. The next chapter will show that the availability on the market of the commodity labor-power is necessary to make this result possible, and in chapter Seven, 205:1, a detailed answer of the above problem is given.

Question 697 Why does Marx say at the end of chapter Five: “hic Rhodus, hic salta”? [2012fa](#), [2011fa](#), [2008fa](#), [2007fa](#), [2005fa](#), [2004fa](#), [2003fa](#).

Question 698 How does Marx come to the conclusion that “capital must originate within circulation and not within it”? How does he resolve this seeming paradox? [2004fa](#), [2003fa](#), [2002fa](#).

Question 699 “In chapter Five, Marx recognizes that the general laws of the commodity cannot explain $M - C - M'$, therefore he gives up on explaining it and resigns himself to the fact that the concept of value is not the right paradigm to explain capitalism.” Right or wrong?

6. Sale and Purchase of Labor-Power

“The Buying and Selling of Labor-Power” is not a good

translation, because Marx’s emphasis is not on the transaction

itself but on the fact that labor-power is a commodity.

6.1. [How to Achieve $M-C-M'$?]

According to the reasoning presented in chapter Five, $M-C-M'$ seems almost impossible to achieve, although we see it happening every day. At the end of chapter Five, Marx concludes that the missing link responsible for the self-expansion of capital must act both inside *and* outside circulation. Marx begins chapter Six with a systematic search for the part of this missing link that takes place in circulation. He examines every phase of the circuit $M-C-M'$ in order to see whether it can be associated with the creation of surplus-value.

Marx begins with the money form, which plays a pivotal role in the movement of capital. Money is the first form of capital 157:2, and it remains an indispensable point of reference in the self-expansion of capital 165:1. Nevertheless it is clear that capital must *leave* the money form if it wants to self-expand:

177:1 The change of value, by which money transforms itself into capital, cannot take place as long as it remains in the form of money. As means of purchase and payment, money merely realizes the price of the commodity it buys or pays for, and if it retains the form of money, it petrifies into a mass of value of unchanging magnitude.³⁸

³⁸ ‘In the form of money ... capital is productive of no profit’ (Ricardo, *Principles of Political Economy*, p. 267).

↑ It is obvious that the self-expansion does not take place while capital assumes the form of money, or in the transaction in which this money buys a commodity. ↓ One might think that this self-expansion takes place in the second market transaction, in which the commodity is converted back into money, because at this point more money flows back than was advanced as cost. But Marx denies this possibility as well:

Neither can this change originate in the second act of circulation, the resale of the commodity, for this act merely converts the commodity from its bodily form back into its money form.

↑ The exchange of equivalents is one of the conditions of the search, see 176:3/o.

181:1 Die Wertveränderung des Geldes, das sich in Kapital verwandeln soll, kann nicht an diesem Geld selbst vorgehn, denn als Kaufmittel und als Zahlungsmittel realisiert es nur den Preis der Ware, die es kauft oder zahlt, während es, in seiner eigenen Form verharrend, zum Petrefakt von gleichbleibender Wertgröße erstarrt.³⁸

³⁸ „In der Form von Geld ... erzeugt das Kapital keinen Profit.“ (Ricardo, „*Princ. of Pol. Econ.*“, p. 267.)

Ebensowenig kann die Veränderung aus dem zweiten Zirkulationsakt, dem Wiederverkauf der Ware, entspringen, denn dieser Akt verwandelt die Ware bloß aus der Naturalform zurück in die Geldform.

Question 701 In chapter Five, Marx argued that the exchange of nonequivalents must be ruled out as a source of surplus-value. Briefly summarize his argument. [2009fa](#), [2008fa](#), [2007SP](#), [2003fa](#), [2002fa](#).

Exam Question 702 What is the difference between the value of labor-power and the value created by labor-power? [2013fa](#), [2012fa](#), [2011fa](#).

If the change of value cannot happen when the capital is in money form, and also not in the acts of selling and buying, $\Downarrow$ then the consumption of commodity C is the only possible place where value can change, i.e., where surplus-value can be created. The involvement of consumption would at the same time take us outside the circulation process, as predicted in chapter Five:

The change must therefore take place in the commodity which is bought in the first act of circulation, $M-C$. But its value remains unchanged, because it is equivalents which are being exchanged and the commodity is paid for at its full value. The change can therefore only originate in its use-value as such, i.e. in the consumption of the commodity.

Die Veränderung muß sich also zutragen mit der Ware, die im ersten Akt $G-W$ gekauft wird, aber nicht mit ihrem Wert, denn es werden Äquivalente ausgetauscht, die Ware wird zu ihrem Werte bezahlt. Die Veränderung kann also nur entspringen aus ihrem Gebrauchswert als solchem, d.h. aus ihrem Verbrauch.

This is again a retrodution by elimination: There is no other place where the self-expansion of value is possible. By ruling out all other alternatives, the following specific scenario remains as the only possibility to sustain the self-expansion $M-C-M'$.

In order to extract value out of the consumption of a commodity, our friend the money-owner must be lucky enough to find within the sphere of circulation, on the market, a commodity whose use-value possesses the peculiar property of being a source of value, whose actual consumption is therefore itself an objectification of labor, hence a creation of value.

Um aus dem Verbrauch einer Ware Wert herauszuziehen, müßte unser Geldbesitzer so glücklich sein, innerhalb der Zirkulations-sphäre, auf dem Markt, eine Ware zu entdecken, deren Gebrauchswert selbst die eigentümliche Beschaffenheit besäße, Quelle von Wert zu sein, deren wirklicher Verbrauch also selbst Vergegenständlichung von Arbeit wäre, daher Wertschöpfung.

Marx's abstract second-order deliberations lead him therefore to predict that labor-power is a commodity:

And indeed, the money-owner does find such a special commodity on the market: the capacity for labor, in other words labor-power.

Und der Geldbesitzer findet auf dem Markt eine solche spezifische Ware vor—das Arbeitsvermögen oder die Arbeitskraft.

Question 705 Is it surprising, in the context of chapter Six, that the money-owner finds a commodity on the market “whose use-value possesses the peculiar property of being a source of value, whose actual consumption is therefore itself an objectification of labor, hence a creation of value”? [2009fa](#), [2007SP](#), [2005fa](#).

The rest of this chapter will discuss the commodity labor-power, and how its value is determined, and chapter Seven will look at the consumption of this labor-power which creates more value than the value that had to be paid for labor-power.

6.2. [Labor-Power as a Commodity]

177:2 We mean by labor-power, or labor-capacity, the aggregate of those mental and physical capabilities existing in the physical body, the living personality, of a human being, capabilities which he sets in motion whenever he produces a use-value of any kind.

181:2 Unter Arbeitskraft oder Arbeitsvermögen verstehen wir den Inbegriff der physischen und geistigen Fähigkeiten, die in der Leiblichkeit, der lebendigen Persönlichkeit eines Menschen existieren und die er in Bewegung setzt, sooft er Gebrauchswerte irgendeiner Art produziert.

This definition of labor-power as the human capacity to perform various kinds of labor is valid in all history. But the expression of this capacity is socially recognized as the value of the product only under commodity production. And even in today's commodity society, not all labor creates value. Homemakers use their labor-power to produce for the family and to bring up children, without this labor being socially recognized in the value of a marketable good.

Exam Question 706 *Chapter Six is not the first place where labor-power is discussed. Where was labor-power introduced first, and which role did it play then? But the discussion of labor-power in chapter Six introduces one fundamental new aspect of it which was not discussed before. What is it?* 2013fa, 2012fa, 2011fa, 2007SP, 2005fa, 2003fa, 2001fa, 1999SP, 1997WI.

Even if labor-power produces value, this does not automatically make labor-power itself a commodity. Labor-power becomes a commodity only under very specific historical conditions. Before listing these conditions, the following clarification is in order: Whenever Marx speaks of labor-power as a commodity, he assumes that not only the worker's ability to work, but also his willingness to work can be bought—so that the consumption of the labor-power by the buyer does not require any other coercion than that given by market forces. The justification for this stronger requirement is that any dependencies between the commodity producers which do not spring from the commodity relation itself are incompatible with the nature of the commodity relation.

The following two sets of conditions, listed by Marx in the remainder of what is called here section 6.2, are necessary for labor-power to be a commodity in the sense that both capability and consent of the laborer can be bought:

- (1) Freedom of the laborer to sell his or her labor-power.
 - (1a) The laborer himself must be the one who sells the labor-power.
 - (1b) The laborer must have free disposal over his or her person.
 - (1c) Since the price of labor-power is to be determined by market forces, seller and buyer of labor-power must be legally equal.
 - (1d) For the freedom and equality of points (1b) and (1c) to endure, the worker must be prevented from selling himself or herself once and for all. The worker can sell himself or herself only temporarily.
- (2) If the laborer were able to sell a finished product instead of her labor-power, she would never sell her labor-power, since it is much more lucrative to sell the finished product. She will therefore only sell her labor-power if she is deprived of the following necessary conditions for doing the production herself:

- (2a) For any production, the worker needs access to pre-existing products.
- (2b) Workers must have things to consume before producing.
- (2c) If the product is a commodity, the producer not only has to wait until it is produced, but until it is sold, before he or she can benefit from the labor in that product.

Marx ends with the remark that conditions (1) and (2) represent the two meanings of free: free to and free from.

After this overview, let us look at Marx's argument in detail. ↓ All conditions for labor-power being a commodity enumerated in the next paragraph fall under point (1):

178:1 But in order that the owner of money may find labor-power on the market as a commodity, various conditions must first be fulfilled.

181:3/o Damit jedoch der Geldbesitzer die Arbeitskraft als Ware auf dem Markt vorfinde, müssen verschiedene Bedingungen erfüllt sein.

↓ (1a) Labor-power must be sold by the laborer himself, because otherwise coercive relations would be necessary that are incompatible with the free exchange of commodities.

In and for itself, the exchange of commodities requires that there be no other relations of dependence than those resulting from its own nature. On this presupposition, labor-power can appear on the market as a commodity only if its possessor, the individual whose labor-power it is, is also the one who offers it for sale.

Der Warenaustausch schließt an und für sich keine andren Abhängigkeitsverhältnisse ein als die aus seiner eignen Natur entspringenden. Unter dieser Voraussetzung kann die Arbeitskraft als Ware nur auf dem Markt erscheinen, sofern und weil sie von ihrem eignen Besitzer, der Person, deren Arbeitskraft sie ist, als Ware feilgeboten oder verkauft wird.

Fowkes translates
"Voraussetzung" (presupposition)

with "assumption." This
introduces the epistemic fallacy.

This is not the first time that Marx invokes the principle that people must relate to each other only as commodity owners. He used this also in chapter Three, 118:2/o, where he asked where the buyer (not only the buyer of labor-power but any buyer) gets the money needed to buy. After having clarified that the laborer himself or herself must be the seller, freedom and equality of the seller on the market become freedom and equality of the laborer: ↓ First (1b), the market freedom of the seller to decide whether or not to sell becomes freedom of the laborer:

In order that its possessor may sell it as a commodity, he must have it at his disposal, he must be the free proprietor of his own labor-capacity, i.e., of his person.³⁹

Damit ihr Besitzer sie als Ware verkaufe, muß er über sie verfügen können, also freier Eigentümer seines Arbeitsvermögens, seiner Person sein.³⁹

Note here the distinction between
proprietor and possessor: a slave is

possessor of his labor-power but
not its proprietor.

↑ The above implicitly rules out slave labor as the basis for capitalism because both sale and labor of the slave presuppose direct coercion of the slave. "Accumulation of slaves and land necessitates relations of domination and servitude" (*Contribution*, 366:1). Capital can only then fully develop if all relations that are not based on commodity exchange are removed or, at least, marginalized.

6. Sale and Purchase of Labor-Power

Question 709 *One of the conditions under which the money owner can purchase labor-power in order to do $M - C - M'$ is, according to Marx, that the labor-power must be sold by the worker him- or herself. Why this latter requirement?* 2013fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2003fa, 2001fa, 1999SP, 1998WI, 1997ut.

³⁹ In encyclopedias about classical antiquity one can read such nonsense as this: In the ancient world capital was fully developed, 'except for the absence of the free worker and of a system of credit'. Mommsen too, in his History of Rome, commits one blunder after another in this respect.

³⁹ In Realenzyklopädien des klassischen Altertums kann man den Unsinn lesen, daß in der antiken Welt das Kapital völlig entwickelt war, „außer daß der freie Arbeiter und das Kreditwesen fehlten“. Auch Herr Mommsen in seiner „Römischen Geschichte“ begeht ein Quidproquo über das andre.

↓ Now (1c), equality of buyer and seller:

He and the owner of money meet in the market and enter a relation with each other as equally empowered commodity owners. The only difference between them is that one is a buyer, the other a seller; both are therefore equal in the eyes of the law.

Er und der Geldbesitzer begegnen sich auf dem Markt und treten in Verhältnis zueinander als ebenbürtige Warenbesitzer, nur dadurch unterschieden, daß der eine Käufer, der andre Verkäufer, beide also juristisch gleiche Personen sind.

This necessitates (1d), that the sale of labor-power must always be only temporary:

For this relation to continue, the proprietor of labor-power must always sell it only for a limited period, for if he were to sell it in a lump, once and for all, he would be selling himself, converting himself from a free man into a slave, from an owner of a commodity into a commodity. He must continually treat his labor-power as his own property, his own commodity, and he can do this only by placing it at the disposal of the buyer only temporarily, i.e. by handing it over to the buyer for him to consume only for a specific period of time. The alienation of his labor-power must not be the renunciation of his rights of ownership over it.⁴⁰

Die Fortdauer dieses Verhältnisses erheischt, daß der Eigentümer der Arbeitskraft sie stets nur für bestimmte Zeit verkaufe, denn verkauft er sie in Bausch und Bogen, ein für allemal, so verkauft er sich selbst, verwandelt sich aus einem Freien in einen Sklaven, aus einem Warenbesitzer in eine Ware. Er als Person muß sich beständig zu seiner Arbeitskraft als seinem Eigentum und daher seiner eignen Ware verhalten, und das kann er nur, soweit er sie dem Käufer stets nur vorübergehend, für einen bestimmten Zeittermin, zur Verfügung stellt, zum Verbrauch überläßt, also durch ihre Veräußerung nicht auf sein Eigentum an ihr verzichtet.⁴⁰

The state intervenes here and regulates the sale and purchase of labor-power by law, so that the worker's dependence on the sale of his or her labor-power does not lead to the sale of labor-power once and for all:

⁴⁰ Hence legislation in various countries fixes a maximum length for labor contracts. Wherever free labor is the rule, the law regulates the conditions for terminating this contract.

⁴⁰ Verschiedne Gesetzgebungen setzen daher ein Maximum für den Arbeitskontrakt fest. Alle Gesetzbücher bei Völkern freier Arbeit regeln Kündigungsbedingungen des Kontrakts.

Question 710 *Why are the conditions for terminating employment regulated by law instead of being left to the free market? Does this mean that the state protects the workers against the capitalists?* 2012fa, 2011fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1999SP, 1997ut, 1997WI.

The next part of the footnote discusses “hidden forms of slavery.”

6.2. [Labor-Power as a Commodity]

^{40 ctd} In some countries, particularly in Mexico (and before the American Civil War in the territories taken by the United States from Mexico, as also in practice in the Danubian Principalities until Cuza's coup d'état), slavery is hidden under the form of peonage. By means of advances repayable in labor, which are handed down from generation to generation, not only the individual worker, but also his family, become in fact the property of other persons and their families. Juárez abolished peonage, but the so-called Emperor Maximilian re-established it by a decree which was aptly denounced in the House of Representatives in Washington as a decree for the re-introduction of slavery into Mexico.

^{40 ctd} In verschiedenen Ländern, namentlich in Mexiko (vor dem Amerikanischen Bürgerkrieg auch in den von Mexiko losgerissenen Territorien, und der Sache nach bis zu Kusas Umwälzung in den Donauprovinzen), ist die Sklaverei unter der Form von Peonage versteckt. Durch Vorschüsse, die in Arbeit abzutragen und sich von Generation zu Generation fortwälzen, wird nicht nur der einzelne Arbeiter, sondern seine Familie tatsächlich das Eigentum anderer Personen und ihrer Familien. Juárez hatte die Peonage abgeschafft. Der sogenannte Kaiser Maximilian führte sie wieder ein durch ein Dekret, das im Repräsentantenhaus zu Washington treffend als Dekret zur Wiedereinführung der Sklaverei in Mexiko denunziert ward.

The rest of the footnote is taken up by a Hegel quote in which Hegel tries to argue why slavery is bad but wage labor good:

^{40 ctd} 'Single products of my particular physical and mental skill and of my power to act I can alienate to someone else and I can give him the use of my abilities for a restricted period, because, on the strength of this restriction, my abilities acquire an external relation to the totality and universality of my being. By alienating the whole of my time, as crystallized in my work, and everything I produced, I would be making into another's property the substance of my being, my universal activity and actuality, my personality' (Hegel, *Philosophie des Rechts*, Berlin, 1840, p. 104, para. 67) [English translation, p. 54].

^{40 ctd} „Von meinen besondern körperlichen und geistigen Geschicklichkeiten und Möglichkeiten der Tätigkeit kann ich ... einen in der Zeit beschränkten Gebrauch an einen andren veräußern, weil sie nach dieser Beschränkung ein äußerliches Verhältnis zu meiner Totalität und Allgemeinheit erhalten. Durch die Veräußerung meiner ganzen durch die Arbeit konkreten Zeit und der Totalität meiner Produktion würde ich das Substantielle derselben, meine allgemeine Tätigkeit und Wirklichkeit, meine Persönlichkeit zum Eigentum eines andren machen.“ (Hegel, *„Philosophie des Rechts“*, Berlin 1840, p. 104, §67.)

Question 713 *The purchase of slaves and sale of their product is the purchase of a commodity which has the use-value of creating more value than it contains. Why is capitalism not based on slavery?* [2008fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#), [1999SP](#), [1997ut](#), [1997sp](#), [1997WI](#).

Now Argument (2), the laborer must be forced to sell his or her labor-power instead of selling his or her product. Marx tacitly uses here an argument which will explicitly be made only later in this chapter: selling a commodity produced by the labor-power would be much more lucrative than selling the labor-power itself, since the seller would get reimbursed for all the labor in the product instead of only the value of his or her labor-power.

178:2/o The second essential condition which allows the money owner to find labor-power in the market as a commodity is this, that the owner of labor-power, instead of being able to sell commodities in which his labor has been objectified, must rather be compelled to offer for sale as a commodity

183:1 Die zweite wesentliche Bedingung, damit der Geldbesitzer die Arbeitskraft auf dem Markt als Ware vorfinde, ist die, daß ihr Besitzer, statt Waren verkaufen zu können, worin sich seine Arbeit vergegenständlicht hat, vielmehr seine Arbeitskraft selbst, die nur in seiner lebendigen Leiblichkeit exi-

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that very labor-power which exists only in his living body.

stiert, als Ware feilbieten muß.

“Possessor” is a more precise translation of “*Besitzer*” than “owner.” However Marx is apparently not distinguishing here

between possession and ownership; in colloquial German, “*Besitzer*” is often used to mean “owner.” Fowkes is therefore right

to translate, in the above sentence, Marx’s “*Geldbesitzer*” as “owner of money.”

Marx gives now a counterfactual argument, enumerating all the things which would be necessary for the worker to sell a product instead of labor: (2a) For production, pre-existing products are necessary:

179:1 In order that a man may be able to sell commodities other than his labor-power, he must of course possess means of production, such as raw materials, instruments of labor, etc. No boots can be made without leather.

183:2 Damit jemand von seiner Arbeitskraft unterschiedne Waren verkaufe, muß er natürlich Produktionsmittel besitzen, z.B. Rohstoffe, Arbeitsinstrumente usw. Er kann keine Stiefel machen ohne Leder.

(2b) ↓ The laborer needs to consume before and during production:

He requires also the means of subsistence. Nobody, not even a builder of castles in the air, can live on the products of the future, or on use-values whose production has not yet been completed; just as on the first day of his appearance on the world’s stage, man must still consume every day, before and while he produces.

Er bedarf außerdem Lebensmittel. Niemand, selbst kein Zukunftsmusikant, kann von Produkten der Zukunft zehren, also auch nicht von Gebrauchswerten, deren Produktion noch unfertig, und wie am ersten Tage seiner Erscheinung auf der Erdbühne, muß der Mensch noch jeden Tag konsumieren, bevor und während er produziert.

(2c) ↓ If the product is a commodity, then not only its production time but also its circulation time must be bridged by the consumption of pre-existing products.

If products are produced as commodities, they must be sold after they have been produced and they can only satisfy the producer’s needs after they have been sold. The time necessary for sale must be added to the time of production.

Werden die Produkte als Waren produziert, so müssen sie verkauft werden, nachdem sie produziert sind, und können die Bedürfnisse des Produzenten erst nach dem Verkauf befriedigen. Zur Produktionszeit kommt die für den Verkauf nötige Zeit hinzu.

↓ If the worker lacks the above, then he or she cannot sell products but must sell labor-power. This lack is again freedom—not “freedom to,” as in condition (1a), but “freedom from.”

179:2 For the transformation of money into capital, therefore, the owner of money must find the free worker available on the commodity-market; and this worker must be free in the double sense that as a free individual he can dispose of his labor-power as his own commodity, and that, on the other hand, he has no other commodity for sale, i.e. he is rid of them, he is free of all the objects needed for the realization of his labor-power.

183:3 Zur Verwandlung von Geld in Kapital muß der Geldbesitzer also den freien Arbeiter auf dem Warenmarkt vorfinden, frei in dem Doppelsinn, daß er als freie Person über seine Arbeitskraft als seine Ware verfügt, daß er andererseits andre Waren nicht zu verkaufen hat, los und ledig, frei ist von allen zur Verwirklichung seiner Arbeitskraft nötigen Sachen.

Question 716 a. What is labor-power?

b. Which conditions must be met for labor-power to be a commodity sold by the laborer him- or herself?

c. Which historical developments must therefore have taken place before the beginning of capitalism? 2005fa, 2003fa, 2002fa, 2001fa, 1999SP, 1997sp, 1997WI.

Question 717 Which two sets of conditions must be satisfied for labor-power to be a commodity? 2012fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 1998WI, 1996sp.

6.3. [Historical Preconditions of Economic Forms]

179:3 Why this free worker confronts him in the sphere of circulation is a question which does not interest the owner of money, for he finds the labor market in existence as a particular branch of the commodity market. And for the present it interests us just as little. We take this fact for granted theoretically, as he does practically.

183:4 Die Frage, warum dieser freie Arbeiter ihm in der Zirkulationssphäre gegenübertritt, interessiert den Geldbesitzer nicht, der den Arbeitsmarkt als eine besondere Abteilung des Warenmarkts vorfindet. Und einstweilen interessiert sie uns ebensowenig. Wir halten theoretisch an der Tatsache fest, wie der Geldbesitzer praktisch.

Due to its qualities, labor-power stands out against all the other commodities like a single black sheep against a herd of white sheep. This throws up two questions, one historical, the other logical. The *historical* question is: under which conditions did this black sheep arise? The *logical* question is: are there some deeper reasons why money bags, whose appetite has been whetted by the abstract and one-dimensional nature of monetary wealth, is so lucky to find on the market exactly that commodity labor-power which allows him to fulfill his dreams of enrichment?

It is not clear whether Marx's question "why the free worker confronts the money owner in the sphere of circulation" refers to the historical or the logical dimension. If it is the historical question, the answer can be found in the chapters on "primitive accumulation" at the end of *Capital I*, which describe the forcible expropriation of the direct producers. If it is the logical question, an answer would require an investigation of the anatomy of the black sheep, i.e., of the relationship between labor-power, the ordinary commodities, money, and capital.

The black sheep has intricate connections with the white sheep: "Only when and where wage labor is its basis does commodity production impose itself upon the whole society" (*Capital I*, ; similar remarks e.g. in *Resultate*). It is therefore not an extraneous accident or even an adulteration of commodity circulation that the black sheep labor-power runs around among the ordinary commodities. Nevertheless, Marx does not give a derivation of the commodity labor-power in *Capital* comparable to his derivation of capital progressing from value to money and on to capital. However in *Grundrisse*, elements of a parallel progression, from use-value to the commodity to wage labor, can be found. Marx compares the relation between use-value and exchange-value in the pair commodity–money and in the pair wage labor–capital (196:6–204:0).

Why not in *Capital*? Perhaps Marx changed his mind about the merits of reducing everything to the basic contradiction between use-value and value. Another possibility would be that Marx did not think that such a derivation belonged into *Capital*. Perhaps he wanted to

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include it into the book about wage labor, which Marx had planned to write. (He refers to it in chapter Twenty, p. 542:2. However there is a hot debate whether Marx really wanted to write a book about wage labor.)

The phrase “we take this fact for granted theoretically” might therefore mean that Marx postpones this part of the derivation, since it belongs into the book on wage labor and would lead us too far afield. Just as the capitalist can make his profits without knowing why he finds labor-power on the market, so can we gain an understanding of the capital relation even if some foundational issues regarding the wage labor remain unresolved. A similar argument is also made in 565:2.

Question 721 *Why does the money-owner find wage-labor on the market—exactly the commodity he needs to become a capitalist?* 2007SP, 2005fa, 2004fa.

↓ The discussion which follows now does *not* tell us why labor-power has become a commodity, but remarks in general that such things do not happen naturally but have their specific historical conditions:

One thing, however, is clear: nature does not produce owners of money or commodities on the one side, and men possessing nothing but their own labor-power on the other. This relation has no basis in natural history, nor is it a social relation common to all periods of human history. It is obviously the result of a past historical development, the product of many economic revolutions, of the demise of a whole series of older formations of social production.

Eins jedoch ist klar. Die Natur produziert nicht auf der einen Seite Geld- oder Warenbesitzer und auf der anderen bloße Besitzer der eignen Arbeitskräfte. Dies Verhältnis ist kein naturgeschichtliches und ebenso wenig ein gesellschaftliches, das allen Geschichtsperioden gemein wäre. Es ist offenbar selbst das Resultat einer vorhergegangenen historischen Entwicklung, das Produkt vieler ökonomischen Umwälzungen, des Untergangs einer ganzen Reihe älterer Formationen der gesellschaftlichen Produktion.

Question 723 *Why is the wage labor relation the result of the demise of older formations of social production, and not the result of these formations themselves? (What is the difference anyway?)*

Labor-power is not unique in this respect. ↓ Also the other economic categories bear the stamp of history.

179:4/o The economic categories which we discussed earlier bear a historical imprint as well.

183:5/o Auch die ökonomischen Kategorien, die wir früher betrachtet, tragen ihre geschichtliche Spur.

Marx gives now the historical conditions for the emergence of commodity and money, and then contrasts this with the historical conditions of capital. Regarding the commodity, Marx asks two questions: what are the conditions for *some* of the products to be produced as commodities, and what are the conditions for the *overwhelming majority* of products to be produced as commodities?

Specific historical conditions must be satisfied for the existence of commodities. In order to become a commodity, the product must not be produced as the immediate

Im Dasein des Produkts als Ware sind bestimmte historische Bedingungen eingehüllt. Um Ware zu werden, darf das Produkt nicht als unmittelbares Subsistenzmit-

means of subsistence of the producer himself. Had we gone further, and inquired under what circumstances all, or even the majority of products take the form of commodities, we should have found that this happens only on the basis of one particular mode of production, the capitalist one. Such an investigation, however, would have been foreign to the analysis of commodities. Production and circulation of commodities can take place even if the great mass of the objects produced are intended for the immediate needs of their producers, and are not turned into commodities, so that the process of social production is by far not dominated in its length and breadth by exchange-value.

tel für den Produzenten selbst produziert werden. Hätten wir weiter geforscht: Unter welchen Umständen nehmen alle oder nimmt auch nur die Mehrzahl der Produkte die Form der Ware an, so hätte sich gefunden, daß dies nur auf Grundlage einer ganz spezifischen, der kapitalistischen Produktionsweise, geschieht. Eine solche Untersuchung lag jedoch der Analyse der Ware fern. Warenproduktion und Warenzirkulation können stattfinden, obgleich die weit überwiegende Produktenmasse, unmittelbar auf den Selbstbedarf gerichtet, sich nicht in Ware verwandelt, der gesellschaftliche Produktionsprozeß also noch lange nicht in seiner ganzen Breite und Tiefe vom Tauschwert beherrscht ist.

↑ The question under what conditions all or most products become commodities has not yet come up, because commodities can also exist in a society in which most products are produced for home consumption. ↓ The conditions necessary for at least *some* products to become commodities have been discussed in more detail in chapter Two, 98:1.

The conversion of the product into a commodity requires a level of development of the division of labor within society such that the separation of use-value from exchange-value, a separation which first begins with barter, has already been completed. But such a degree of development is common to many economic formations of society, with the most diverse historical characteristics.

Die Darstellung des Produkts als Ware bedingt eine so weit entwickelte Teilung der Arbeit innerhalb der Gesellschaft, daß die Scheidung zwischen Gebrauchswert und Tauschwert, die im unmittelbaren Tauschhandel erst beginnt, bereits vollzogen ist. Eine solche Entwicklungsstufe ist aber den geschichtlich verschiedensten ökonomischen Gesellschaftsformationen gemein.

Question 724 Which historical conditions must be satisfied that some products can take the form of commodities? 2008fa, 2003fa, 2002fa.

Question 726 Which historical conditions must be satisfied that all or at least a majority of the products can take the form of commodities? 2003fa.

After the conditions for commodity production now the conditions for money.

179:4/o If we go on to consider money, its existence requires that the development of commodity exchange has reached a certain height. The various forms of money (money as the mere equivalent of commodities, money as means of circulation, money as means of payment, money as hoard, or money as world money) are evidence of very different levels of the process of social production, according to the extent and

184:1 Oder betrachten wir das Geld, so setzt es eine gewisse Höhe des Warenaustausches voraus. Die besondern Geldformen, bloßes Warenäquivalent oder Zirkulationsmittel oder Zahlungsmittel, Schatz und Weltgeld, deuten, je nach dem verschiednen Umfang und dem relativen Vorwiegen einer oder der andren Funktion, auf sehr verschiedene Stufen des gesellschaftlichen Produktionsprozesses. Dennoch genügt erfah-

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relative preponderance of one function or the other. Yet experience shows that a relatively feeble development of commodity circulation suffices for the creation of all these forms.

Commodity production must have reached a certain height for money to exist. The question “which height” depends on the form of money whose existence is to be explained. The development of the various forms of money follows the development of commodity production so closely that the forms of money can be used as historical or archeological evidence for these forms of commerce. Overall, the required level of development for all these forms is “relatively feeble.”

The conditions for the emergence of capital are different than those discussed so far:

Not so with capital. The historical conditions of its existence are by no means fulfilled with the mere circulation of money and commodities. Capital only arises when the owner of the means of production and subsistence finds the free worker selling his own labor-power on the market. This one historical precondition comprises a world’s history. Capital, therefore, ushers in from the outset a new epoch in the process of social production.⁴¹

rungsmäßig eine relativ schwach entwickelte Warenzirkulation zur Bildung aller dieser Formen.

Anders mit dem Kapital. Seine historischen Existenzbedingungen sind durchaus nicht da mit der Waren- und Geldzirkulation. Es entsteht nur, wo der Besitzer von Produktions- und Lebensmitteln den freien Arbeiter als Verkäufer seiner Arbeitskraft auf dem Markt vorfindet, und diese eine historische Bedingung umschließt eine Weltgeschichte. Das Kapital kündigt daher von vornherein eine Epoche des gesellschaftlichen Produktionsprozesses an.⁴¹

Question 727 What does Marx mean by: “Capital ushers in a new epoch in the process of social production,” and how does capital do this? [2008SP](#), [2004fa](#), [1997WI](#), [1996ut](#).

⁴¹ The capitalist epoch is therefore characterized by the fact that labor-power, for the worker himself, takes on the form of a commodity which is his property—and thus his labor takes on the form of wage labor. On the other hand, it is only from this moment that the products of labor generally take the form of commodities.

⁴¹ Was also die kapitalistische Epoche charakterisiert, ist, daß die Arbeitskraft für den Arbeiter selbst die Form einer ihm gehörigen Ware, seine Arbeit daher die Form der Lohnarbeit erhält. Andererseits verallgemeinert sich erst von diesem Augenblick die Warenform der Arbeitsprodukte.

Moore Aveling has: in the eyes of the laborer himself, which is wrong. It is not a matter of how he perceives it, the laborer will often not even be aware that he is selling

his labor-power and not his labor. It is a matter of whether it is a commodity for the laborer, i.e., whether the laborer himself is the one who has the authority to buy

and sell this commodity (his own labor-power). French edition has it right: pour le travailleur lui-même.

Money develops wherever there are commodities, but capital, by contrast, does not immediately follow from the existence of commodities and money. It depends on the availability of labor-power as a commodity, which is a very basic relation of production. Marx writes “capital ushers in a new epoch in the process of social production” because the development of capital will lead to epochal changes, and it does so “from the outset” because one can see this from a very basic first logical facts about it, namely, from its dependence on wage labor.

Question 729 What are the historical conditions for commodity production, what are those for the development of money, and what are those for the development of capital? [2007SP](#), [1999SP](#), [1998WI](#).

Question 730 *If the laborers are separated from the means of production, why don't they simply rent the means of production from the capitalists. Or do they? Can the wage-labor relation also be conceived as the workers renting the means of production from the capitalists?*
2013fa.

6.4. [Value of Labor-Power]

180:1 This peculiar commodity, labor-power, must now be examined more closely. Like all other commodities it has a value.⁴²

184:2 Diese eigentümliche Ware, die Arbeitskraft, ist nun näher zu betrachten. Gleich allen andren Waren besitzt sie einen Wert.⁴²

↓ Hobbes takes it so much for granted that labor-power is a commodity that he conflates the value of labor-power with the value of the worker himself:

⁴² 'The value or worth of a man, is as of all other things his price—that is to say, so much as would be given for the use of his power' (T. Hobbes, *Leviathan*, in *Works*, ed. Molesworth, London, 1839–44, Vol. 3, p. 76).

⁴² „Der Wert eines Mannes ist wie der aller anderen Dinge gleich seinem Preis: das will besagen, so viel, wie für den Gebrauch seiner Kraft gezahlt wird.“ (Th. Hobbes, „*Leviathan*“, in „*Works*“, edit. Molesworth, London 1839–1844, v. III, p. 76.)

↓ The question: “how is this value determined?” is short for: “how is the magnitude of this value determined?”

How is that value determined?

Wie wird er bestimmt?

↓ One might think the value of labor-power is the same as the value created by labor-power. This is wrong. In order to determine the value of labor-power, we must forget the value-creating capabilities which make labor-power a special commodity. We must simply apply the general laws of the commodity developed earlier.

180:2/o The value of labor-power is determined, as in the case of every other commodity, by the labor-time necessary for the production, and consequently also the reproduction, of this specific article.

184:3/o Der Wert der Arbeitskraft, gleich dem jeder andren Ware, ist bestimmt durch die zur Produktion, also auch Reproduktion, dieses spezifischen Artikels notwendige Arbeitszeit.

Just as with every other commodity, we must look at the labor materialized in labor-power in abstraction from the use-value of labor-power.

In so far as it is value, labor-power itself represents nothing other than a definite quantity of the average social labor objectified in it.

Soweit sie Wert, repräsentiert die Arbeitskraft selbst nur ein bestimmtes Quantum in ihr vergegenständlichter gesellschaftlicher Durchschnittsarbeit.

↓ Now Marx discusses the labor objectified in labor-power:

Labor-power exists only as a capacity of the living individual. Its production consequently presupposes his existence. Given the existence of the individual, the production of labor-power consists in his own reproduction or maintenance. For his maintenance he requires a certain quantity of means of subsistence. Therefore the labor-time necessary for the production of labor-

Die Arbeitskraft existiert nur als Anlage des lebendigen Individuums. Ihre Produktion setzt also seine Existenz voraus. Die Existenz des Individuums gegeben, besteht die Produktion der Arbeitskraft in seiner eigenen Reproduktion oder Erhaltung. Zu seiner Erhaltung bedarf das lebendige Individuum einer gewissen Summe von Lebensmitteln. Die zur Produktion der Arbeitskraft notwen-

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power resolves itself into that necessary for the production of those means of subsistence; in other words, the value of labor-power is the value of the means of subsistence necessary for the maintenance of the owner of the labor-power.

↑ The reproduction of labor-power also requires a lot of living labor: cooking, cleaning, raising children, etc. This labor is not reflected in the value of labor-power. Only the worker's expenses are counted here. ↓ This definition will now be filled out with more precise specifications of how much consumption is necessary for the preservation of its owner. Marx gives five such additional details. The first specification ties into the sentence "labor-power exists only as a capacity of the living individual." Mere existence is not enough, labor-power must also be actualized:

However, labor-power becomes actuality only by being applied; it is activated only through labor. In the course of this activation, which is labor, a certain quantity of human muscle, nerve, brain, etc. is expended, and these things must be replaced. If more is expended, more must be received.⁴³

dicke Arbeitszeit löst sich also auf in die zur Produktion dieser Lebensmittel notwendige Arbeitszeit, oder der Wert der Arbeitskraft ist der Wert der zur Erhaltung ihres Besitzers notwendigen Lebensmittel.

Die Arbeitskraft verwirklicht sich jedoch nur durch ihre Äußerung, betätigt sich nur in der Arbeit. Durch ihre Betätigung, die Arbeit, wird aber ein bestimmtes Quantum von menschlichem Muskel, Nerv, Hirn usw. verausgabt, das wieder ersetzt werden muß. Diese vermehrte Ausgabe bedingt eine vermehrte Einnahme.⁴³

The formulation of the first of these specifications is very terse. But footnote 43 gives the required clarification: harder workers need more food, therefore higher wages.

⁴³ In ancient Rome, therefore, the villicus, as the overseer of the agricultural slaves, received 'more meagre fare than working slaves, because his work was lighter' (T. Mommsen, *Römische Geschichte*, 1856, p. 810).

⁴³ Der altrömische villicus, als Wirtschafter an der Spitze der Ackerbauksklaven, empfing daher, „weil er leichtere Arbeit hat als die Knechte, knapperes Maß als diese“. (Th. Mommsen, „*Röm. Geschichte*“, 1856, p. 810.)

Second specification: maintenance of labor-power is a continuous and cumulative process in which the worker must not fall behind:

After having worked today, the owner of labor-power must be able to repeat the same process tomorrow in the same conditions as regards health and strength. His means of subsistence must therefore be sufficient to maintain him in his normal state as a working individual.

Wenn der Eigentümer der Arbeitskraft heute gearbeitet hat, muß er denselben Prozeß morgen unter denselben Bedingungen von Kraft und Gesundheit wiederholen können. Die Summe der Lebensmittel muß also hinreichen, das arbeitende Individuum als arbeitendes Individuum in seinem normalen Lebenszustand zu erhalten.

This will be amended by the fourth specification below, see 183:1.

Third: the needs may vary according to the climate, and are also determined by culture and past class struggles:

His natural needs, such as food, clothing, fuel and housing, vary according to the climatic and other physical peculiarities of his country. On the other hand, the number and extent of his so-called necessary requirements, as also the manner in which they are satisfied, are themselves products of history,

Die natürlichen Bedürfnisse selbst, wie Nahrung, Kleidung, Heizung, Wohnung usw., sind verschieden je nach den klimatischen und andren natürlichen Eigentümlichkeiten eines Landes. Andererseits ist der Umfang sog. notwendiger Bedürfnisse, wie die Art ihrer Befriedigung, selbst ein histo-

and depend therefore to a great extent on the level of civilization attained by a country; in particular they depend on the conditions in which, and consequently on the habits and expectations with which, the class of free workers has been formed.⁴⁴

⁴⁴ Cf. [Tho46].

In contrast, therefore, with other commodities, the determination of the value of labor-power contains a historical and moral element. Nevertheless, in a given country at a given period, the average amount of the means of subsistence necessary for the worker is a known datum.

At Marx's time, the word "moral" was often used for something nonphysical. For instance, Marx calls technical obsolescence of means of production "moral depreciation." The last sentence says that such variations have no bearing as long as one looks at one country during one period only.

Question 733 *How is the value of labor-power determined? Explain what it means that "the determination of the value of labor-power contains a historical and moral element." What does the word "moral" mean here? Doesn't Marx imply with this that the value of labor-power can be just about anything? Is there any scientific insight in this?* 2008fa, 2005fa, 1996sp.

The fourth specific point amends the second: value of labor-power must be sufficient not only to allow the worker to reproduce himself or herself, but also for his or her offspring.

181:1/o The owner of labor-power is mortal. If then his appearance in the market is to be continuous, and the continuous transformation of money into capital assumes this, the seller of labor-power must perpetuate himself 'in the way that every living individual perpetuates himself, by procreation'.⁴⁵ The labor-power removed from the market by wear and tear, and by death, must be continually replaced by, at the very least, an equal amount of fresh labor-power. Hence the sum of means of subsistence necessary for the production of labor-power must include the means necessary for the worker's replacements, i.e. his children, in order that this race of peculiar commodity-owners may perpetuate its presence on the market.⁴⁶

⁴⁵ Petty.

risches Produkt und hängt daher größtenteils von der Kulturstufe eines Landes, unter andrem auch wesentlich davon ab, unter welchen Bedingungen, und daher mit welchen Gewohnheiten und Lebensansprüchen die Klasse der freien Arbeiter sich gebildet hat.⁴⁴

⁴⁴ Vgl. [Tho46].

Im Gegensatz zu den andren Waren enthält also die Wertbestimmung der Arbeitskraft ein historisches und moralisches Element. Für ein bestimmtes Land, zu einer bestimmten Periode jedoch, ist der Durchschnittsumkreis der notwendigen Lebensmittel gegeben.

185:1/o Der Eigentümer der Arbeitskraft ist sterblich. Soll also seine Erscheinung auf dem Markt eine kontinuierliche sein, wie die kontinuierliche Verwandlung von Geld in Kapital voraussetzt, so muß der Verkäufer der Arbeitskraft sich verewigen, „wie jedes lebendige Individuum sich verewigt, durch Fortpflanzung“⁴⁵. Die durch Abnutzung und Tod dem Markt entzogenen Arbeitskräfte müssen zum allermindesten durch eine gleiche Zahl neuer Arbeitskräfte beständig ersetzt werden. Die Summe der zur Produktion der Arbeitskraft notwendigen Lebensmittel schließt also die Lebensmittel der Ersatzmänner ein, d.h. der Kinder der Arbeiter, so daß sich diese Race eigentümlicher Warenbesitzer auf dem Warenmarkte verewigt.⁴⁶

⁴⁵ Petty.

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⁴⁶ 'Its' (labor's) 'natural price ... consists in such a quantity of necessities and comforts of life, as, from the nature of the climate, and the habits of the country, are necessary to support the laborer, and to enable him to rear such a family as may preserve, in the market, an undiminished supply of labor' (R. Torrens, *An Essay on the External Corn Trade*, London, 1815, p. 62). The word labor is here wrongly used for labor-power.

⁴⁶ „Ihr“ (der Arbeit) „natürlicher Preis ... besteht in einer solchen Menge von Subsistenzmitteln und Dingen der Bequemlichkeit, wie sie entsprechend dem Klima und den Gewohnheiten eines Landes notwendig sind, um den Arbeiter zu erhalten und es ihm zu ermöglichen, eine Familie aufzuziehen, die auf dem Markt ein unvermindertes Angebot von Arbeit zu sichern vermag.“ (R. Torrens, „*An Essay on the external Corn Trade*“, London 1815, p. 62.) Das Wort Arbeit steht hier fälschlich für Arbeitskraft.

Young workers without family often do not realize how low their wage really is, because they have lower expenses than workers with families.

Question 734 *When Marx wrote Capital, Social Security or any other tax-financed retirement plans did not yet exist. But capitalism itself generated such plans. How do they fit into Marx's theory of the commodity labor-power and its value?* 2010fa.

The fifth point is important as well: the cost of schooling enters the value of labor-power.

182:1 In order to modify the general nature of the human organism in such a way that it acquires skill and dexterity in a given branch of industry, and becomes labor-power of a developed and specific kind, a special education or training is needed, and this in turn costs an equivalent in commodities of a greater or lesser amount. The costs of education vary according to the degree of complexity of the labor-power required. These expenses (exceedingly small in the case of ordinary labor-power) form a part of the total value spent in producing it.

186:1 Um die allgemein menschliche Natur so zu modifizieren, daß sie Geschick und Fertigkeit in einem bestimmten Arbeitszweig erlangt, entwickelte und spezifische Arbeitskraft wird, bedarf es einer bestimmten Bildung oder Erziehung, welche ihrerseits eine größere oder geringere Summe von Warenäquivalenten kostet. Je nach dem mehr oder minder vermittelten Charakter der Arbeitskraft sind ihre Bildungskosten verschieden. Diese Erlernungskosten, verschwindend klein für die gewöhnliche Arbeitskraft, gehn also ein in den Umkreis der zu ihrer Produktion verausgabten Werte.

Marx's sixth point is an important implication of the indirect method of determining the magnitude of value: the value of labor-power is variable.

182:2 The value of labor-power can be resolved into the value of a definite quantity of the means of subsistence. It therefore varies with the value of the means of subsistence, i.e. with the quantity of labor-time required to produce them.

186:2 Der Wert der Arbeitskraft löst sich auf in den Wert einer bestimmten Summe von Lebensmitteln. Er wechselt daher auch mit dem Wert dieser Lebensmittel, d.h. der Größe der zu ihrer Produktion erheischten Arbeitszeit.

The value of labor-power is therefore determined by many different factors. These factors also have different time dimensions, which requires that the value of a day's labor-power is determined by an averaging method.

182:3/o A part of the means of subsistence, such as food and fuel, are consumed every day, and must therefore be replaced every day. Others, such as clothes and furniture, last for longer periods and need to be

186:3/o Ein Teil der Lebensmittel, z.B. Nahrungsmittel, Heizungsmittel usw., werden täglich neu verzehrt und müssen täglich neu ersetzt werden. Andre Lebensmittel, wie Kleider, Möbel usw., verbrauchen sich

replaced only at longer intervals. Some articles must be bought or paid for every day, others every week, others every quarter and so on. But in whatever way the sum total of these outlays may be spread out over the year, they must be covered by the average daily income. If the total of the commodities required every day for the production of labor-power = A , and of those required every week = B , and of those required every quarter = C , and so on, the daily average of these commodities = $\frac{365A+52B+4C+\dots}{365}$. Assuming that this mass of commodities required for the average day contains 6 hours of social labor, then during every day, half a day of average social labor is objectified in labor-power. In other words, half a day of labor is required to produce labor-power for one day. This quantity of labor constituted the value of a day's labor-power, or the value of the labor-power reproduced every day. If half a day of average social labor is also represented in a mass of gold amounting to 3 shillings, then 3 shillings is the price which corresponds to the value of a day's labor-power. If its owner therefore offers it for sale at 3 shillings a day, its selling price is equal to its value, and according to our original assumption, the owner of money, who is intent on transforming his 3 shillings into capital, pays this value.

in längeren Zeiträumen und sind daher nur in längeren Zeiträumen zu ersetzen. Waren einer Art müssen täglich, andre wöchentlich, vierteljährlich usf. gekauft oder gezahlt werden. Wie sich die Summe dieser Ausgaben aber immer während eines Jahres z.B. verteilen möge, sie muß gedeckt sein durch die Durchschnittseinnahme tagein, tagaus. Wäre die Masse der täglich zur Produktion der Arbeitskraft erheischten Waren = A , die der wöchentlich erheischten = B , die der vierteljährlich erheischten = C usw., so wäre der tägliche Durchschnitt dieser Waren = $\frac{365A+52B+4C+\text{usw.}}{365}$. Gesetzt, in dieser für den Durchschnittstag nötigen Warenmasse steckten 6 Stunden gesellschaftlicher Arbeit, so vergegenständlicht sich in der Arbeitskraft täglich ein halber Tag gesellschaftlicher Durchschnittsarbeit, oder ein halber Arbeitstag ist zur täglichen Produktion der Arbeitskraft erheischt. Dies zu ihrer täglichen Produktion erheischte Arbeitsquantum bildet den Tageswert der Arbeitskraft oder den Wert der täglich reproduzierten Arbeitskraft. Wenn sich ein halber Tag gesellschaftlicher Durchschnittsarbeit ebenfalls in einer Goldmasse von 3 sh. oder einem Taler darstellt, so ist ein Taler der dem Tageswert der Arbeitskraft entsprechende Preis. Bietet der Besitzer der Arbeitskraft sie feil für einen Taler täglich, so ist ihr Verkaufspreis gleich ihrem Wert und, nach unserer Voraussetzung, zahlt der auf Verwandlung seiner Taler in Kapital erpichte Geldbesitzer diesen Wert.

In this calculation, Marx assumes (without saying so explicitly) that a normal working day is 12 hours long. 6 hours of social labor are objectified in the means of consumption necessary to maintain labor-power for one day, and these 6 hours are represented by 3 shillings. A wage of 3 shillings represents therefore only half a day's labor. Although the worker must work a full day to get a wage representing only half a day's labor, he is selling his labor-power at its value and not below its value.

↑ This completes the calculation of the value. We have seen that the value of labor-power is conditional and variable and depends on complex calculations which may not have a unique determinate outcome. ↓ But the range of this indeterminacy and variability is constrained by what Marx calls the *minimum limit* of this value.

183:1 The ultimate or minimum limit of the value of labor-power is formed by the

187:1 Die letzte Grenze oder Minimalgrenze des Werts der Arbeitskraft wird ge-

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value of the commodities which have to be supplied every day to the bearer of labor-power, to the human, so that he can renew his life-process. That is to say, the limit is formed by the value of the physically indispensable means of subsistence. If the price of labor-power falls to this minimum, it falls below its value, since under such circumstances it can be maintained and developed only in a crippled state, and the value of every commodity is determined by the labor-time required to provide it in its normal quality.

The *price* of labor-power cannot fall below this limit but it can hover at this limit. In this situation, however, the price is below the value. A wage which meets only the survival needs of the laborer is a wage below the value of labor-power. The capitalists nevertheless have the incentive to depress wages to this minimum limit, since this is the minimum wage which allows the worker to show up for work. Laborers are often forced to accept such a wage, but since this wage is below the value of labor-power, the market is on their side when they fight to restore the wages to the value of labor-power. This is one of the reasons why, as Marx says in *Value, Price and Profit*, p. [mecw20]148:2, “the necessity of debating their price with the capitalist is inherent to their condition of having to sell themselves as commodities.”

Question 739 *Marx says elsewhere that labor unions are necessary for workers to be able to receive a wage which corresponds to the value of their labor-power and is not below it. Can you bring arguments from chapter Six to support this?* 2010fa, 2005fa, 1997WI.

Question 740 *How is the magnitude of the value of labor-power determined? Be very specific about the different factors that must be taken into consideration. How does this determination differ from that of the value of other commodities?* 2013fa, 2007SP, 1998WI, 1997WI, 1996ut.

Marx’s distinction between the value created by labor and the value of labor-power draws a sharp dividing line between labor and labor-power. Now one might argue that these two cannot really be separated, that one cannot exist without the other, and that therefore any theoretical categories based on their difference are mere mental constructs without significance in the real world. Marx concludes his discussion of the value of labor-power with a paragraph addressing this objection:

183:2–4 It is an extraordinarily cheap kind of sentimentality which declares that this method of determining the value of labor-power, a method prescribed by the very nature of the case, is brutal, and which laments with Rossi in this matter:

To conceive capacity for labor in abstraction from the workers’ means of subsistence during the production process is to conceive a phantom. When we speak of labor, or capacity for labor, we speak at the same time of the

bildet durch den Wert einer Warenmasse, ohne deren tägliche Zufuhr der Träger der Arbeitskraft, der Mensch, seinen Lebensprozeß nicht erneuern kann, also durch den Wert der physisch unentbehrlichen Lebensmittel. Sinkt der Preis der Arbeitskraft auf dieses Minimum, so sinkt er unter ihren Wert, denn sie kann sich so nur in verkümmerter Form erhalten und entwickeln. Der Wert jeder Ware ist aber bestimmt durch die Arbeitszeit, erfordert, um sie in normaler Güte zu liefern.

187:2–4 Es ist eine außerordentlich wohlfeile Sentimentalität, diese aus der Natur der Sache fließende Wertbestimmung der Arbeitskraft grob zu finden und etwa mit Rossi zu jammern:

„Das Arbeitsvermögen (puissance de travail) begreifen, während man von den Subsistenzmitteln der Arbeit während des Produktionsprozesses abstrahiert, heißt ein Hirngespinnst (être de raison) begreifen. Wer Arbeit sagt,

6.5. [The Worker as Creditor]

worker and his means of subsistence, of the worker and his wages.⁴⁷

⁴⁷ [Ros43, p. 370, 371]

When we speak of capacity for labor, we do not speak of labor, any more than we speak of digestion when we speak of capacity for digestion. As is well known, the latter process requires something more than a good stomach. When we speak of capacity for labor, we do not abstract from the necessary means of subsistence. On the contrary their value is expressed in its value. If his capacity for labor remains unsold, this is of no advantage to the worker. He will rather feel it to be a cruel nature-imposed necessity that his capacity for labor has required for its production a definite quantity of the means of subsistence, and will continue to require this for its reproduction. Then he will make the same discovery as Sismondi, that ‘the capacity for labor ... is nothing unless it is sold’.⁴⁸

⁴⁸ [[Si19, p. 113]

Marx agrees with Rossi that the means of subsistence of the workers are implicit in the concept of labor-power. But he disagrees with Rossi’s conflation of labor-power and labor. There is an important practical difference between labor-power and labor, because labor-power cannot produce without means of production. A laborer who is unable to sell his labor-power experiences both of these aspects: the difference between labor-power and labor, and the connection between labor-power and means of subsistence. Although Marx does not say it here explicitly, this scenario makes it clear why labor-power cannot command a price of the market which reimburses the full value produced by the labor.

Question 741 *Argue why the commodity the worker sells is labor-power, and not labor.* 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2005fa, 2004fa, 2003fa, 2002fa, 2000fa, 1999SP, 1997WI.

Question 743 *Labor-power creates products. The value of the products comes from the value of labor-power, and the use-value from the use-value of labor-power. Is this a correct rendering of Marx’s theory?* 2007fa, 2002fa, 1999SP, 1998WI, 1997sp, 1996ut, 1996sp, 1995ut, 1995WI.

wer Arbeitsvermögen sagt, sagt zugleich Arbeiter und Subsistenzmittel, Arbeiter und Arbeitslohn.“⁴⁷

⁴⁷ [Ros43, p. 370, 371]

Wer Arbeitsvermögen sagt, sagt nicht Arbeit, so wenig als wer Verdauungsvermögen sagt, Verdauen sagt. Zum letzteren Prozeß ist bekanntlich mehr als ein guter Magen erfordert. Wer Arbeitsvermögen sagt, abstrahiert nicht von den zu seiner Subsistenz notwendigen Lebensmitteln. Ihr Wert ist vielmehr ausgedrückt in seinem Wert. Wird es nicht verkauft, so nützt es dem Arbeiter nichts, so empfindet er es vielmehr als eine grausame Naturnotwendigkeit, daß sein Arbeitsvermögen ein bestimmtes Quantum Subsistenzmittel zu seiner Produktion erheischt hat und stets wieder von neuem zu seiner Reproduktion erheischt. Er entdeckt dann mit Sismondi: „Das Arbeitsvermögen ... ist nichts, wenn es nicht verkauft wird“⁴⁸

⁴⁸ [[Si19, p. 113]

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Since the use-value of labor-power consists in the manifestation of this power *after* it is sold, the capitalist pays the laborer after he has worked, in order to ensure delivery of the

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commodity labor-power he has bought. In effect, the worker gives a forced credit to the capitalist. Instead of earning interest on this credit, the worker is economically penalized for it: loss of wages in bankruptcy, bread undersellers, higher prices in company shops which sell for credit.

184:1/o One consequence of the peculiar nature of labor-power as a commodity is this, that it does not in reality pass straight away into the hands of the buyer on the conclusion of the contract between buyer and seller. Its value, like that of every other commodity, was determined before it enters into circulation, because the production of the labor-power required a specific quantity of social labor. But its use-value only consists in the subsequent exercise of that power. The alienation of labor-power and its actual manifestation, when it takes effect as a use-value, do not coincide in time. In those cases, however, in which the formal alienation by sale of the use-value of a commodity does not coincide with its actual transfer to the buyer, the money of the buyer usually serves as means of payment.⁴⁹

188:1 Die eigentümliche Natur dieser spezifischen Ware, der Arbeitskraft, bringt es mit sich, daß mit der Abschließung des Kontrakts zwischen Käufer und Verkäufer ihr Gebrauchswert noch nicht wirklich in die Hand des Käufers übergegangen ist. Ihr Wert, gleich dem jeder andren Ware, war bestimmt, bevor sie in die Zirkulation trat, denn ein bestimmtes Quantum gesellschaftlicher Arbeit ward zur Produktion der Arbeitskraft verausgabt. Aber ihr Gebrauchswert besteht erst in der nachträglichen Kraftäußerung. Die Veräußerung der Kraft und ihre wirkliche Äußerung, d.h. ihr Dasein als Gebrauchswert, fallen daher der Zeit nach auseinander. Bei solchen Waren aber,⁴⁹ wo die formelle Veräußerung des Gebrauchswerts durch den Verkauf und seine wirkliche Überlassung an den Käufer der Zeit nach auseinanderfallen, funktioniert das Geld des Käufers meist als Zahlungsmittel.

Money serves as means of payment means: the payment takes place a certain time period after the goods have changed hands.

⁴⁹ 'All labor is paid after it has ceased' (An Inquiry into Those Principles, Respecting the Nature of Demand, etc., p. 104). "The system of commercial credit had to start at the moment when the worker, the prime creator of products, could, thanks to his savings, wait for his wages until the end of the week, the fortnight, the month, the quarter, etc.' (C. Ganilh, Des systemes de l'economie politique, 2nd edn, Paris, 1821, Vol. 2, p. 150).

⁴⁹ „Alle Arbeit wird bezahlt, nachdem sie beendet ist.“ („An Inquiry into those Principles, respecting the Nature of Demand etc.“, p. 104.) „Der kaufmännische Kredit mußte in dem Moment anfangen, in dem der Arbeiter, der erste Schöpfer der Produktion, auf Grund seiner Ersparnisse in der Lage war, auf den Lohn seiner Arbeit bis zum Ende von ein bis zwei Wochen, eines Monats, eines Vierteljahres usw. zu warten.“ (Ch. Ganilh. „Des Systèmes d'Écon. Polit.“, 2ème édit., Paris 1821, t. II, p. 150.)

With an ordinary commodity, it does not matter when the buyer uses it, because he has full control over it and he can use it whenever he likes. Not so with the labor-power.

In every country where the capitalist mode of production prevails, it is the custom not to pay for labor-power until it has been exercised for the period fixed by the contract, for example, at the end of each week. In all cases, therefore, the worker advances the use-value of his labor-power to the capital-

In allen Ländern kapitalistischer Produktionsweise wird die Arbeitskraft erst gezahlt, nachdem sie bereits während des im Kaufkontrakt festgesetzten Termins funktioniert hat, z.B. am Ende jeder Woche. Überall schießt daher der Arbeiter dem Kapitalisten den Gebrauchswert der Arbeitskraft vor; er

ist. He lets the buyer consume it before he receives payment of the price. Everywhere the worker allows credit to the capitalist.

This credit by the worker to the capitalist is not an empty imagination or fiction, but it is part of the reality in which the worker lives. It has a number of very real consequences:

That this credit is no mere fiction is shown not only by the occasional loss of the wages the worker has already advanced, when a capitalist goes bankrupt,⁵⁰ but also by a series of more permanent consequences.⁵¹

Storch in footnote 50 excuses the defrauding of the worker with the pun that only material things are considered “substantial:”

⁵⁰ ‘The worker lends his industry,’ says Storch. But he slyly adds to this the statement that the worker ‘risks nothing’, except ‘the loss of his wages ... The worker does not hand over anything of a material nature’. (Storch, *Cours d’économie politique*, St Petersburg, 1815, Vol. 2, pp. 36–7).

läßt sie vom Käufer konsumieren, bevor er ihren Preis bezahlt erhält, überall kreditiert daher der Arbeiter dem Kapitalisten.

Daß dies Kreditieren kein leerer Wahn ist, zeigt nicht nur der gelegentliche Verlust des kreditierten Lohns beim Bankrott des Kapitalisten,⁵⁰ sondern auch eine Reihe mehr nachhaltiger Wirkungen.⁵¹

⁵⁰ „Der Arbeiter leiht seinen Fleiß,“ aber, setzt Storch schlaue hinzu: er „riskiert nichts“, außer „seinen Lohn zu verlieren ... der Arbeiter überträgt nichts Materielles“. (Storch, *„Cours d’Écon. Polit.“*, Petersbourg 1815, t. II, p. 36, 37.)

One implication of this forced lending by the worker is described in footnote 51. Since the workers do not have cash, they are forced to buy in stores which give them credit. (Often these stores are owned by the employer.) Since these stores do not have to fear competition (the worker cannot go elsewhere), they either sell inferior merchandise or charge exorbitant prices:

⁵¹ One example. In London there are two sorts of bakers, the ‘full priced’, who sell bread at its full value, and the ‘undersellers’, who sell it at less than its value. The latter class comprises more than three-quarters of the total number of bakers (p. xxxii in the Report of H. S. Tremenheere, the commissioner appointed to examine the grievances complained of by the journeymen bakers’, etc., London, 1862). The undersellers, almost without exception, sell bread adulterated with alum, soap, pearl-ash, chalk, Derbyshire stonedust and other similar agreeable, nourishing and wholesome ingredients. (See the above-cited Blue Book, as also the report of the select committee of 1855 on the adulteration of food, and Dr. Hassall’s *Adulterations Detected*, 2nd edn, London, 1861.) Sir John Gordon stated before the committee of 1855 that ‘in consequence of these adulterations, the poor man, who lives on two pounds of bread a day, does not now get one-fourth part of nourishing matter, let alone the deleterious effects on his health’. Tremenheere states (op. cit., p. xlviii) as the reason why a ‘very large part of the working class’, although well aware of this adulteration, nevertheless accept the alum, stone-dust, etc. as part of their pur-

⁵¹ Ein Beispiel. In London existieren zweierlei Sorten von Bäckern, die „full priced“, die das Brot zu seinem vollen Werte verkaufen, und die „undersellers“, die es unter diesem Werte verkaufen. Letztere Klasse bildet über 3/4 der Gesamtzahl der Bäcker (p. XXXII im „Report“ des Regierungskommissärs H. S. Tremenheere über die „Grievances complained of by the journeymen bakers etc.“, London 1862). Diese undersellers verkaufen, fast ausnahmslos, Brot, das verfälscht ist durch Beimischung von Alaun, Seife, Perlasse, Kalk, Derbyshire-Steinmehl und ähnlichen angenehmen, nahrhaften und gesunden Ingredienzien. (Siehe das oben zitierte Blaubuch, ebenso den Bericht des „Committee of 1855 on the Adulteration of Bread“ und Dr. Hassalls, *„Adulterations Detected“*, 2nd. edit., London 1861.) Sir John Cordon erklärte vor dem Komitee von 1855, daß „infolge dieser Fälschungen der Arme, der von zwei Pfund Brot täglich lebt, jetzt nicht den vierten Teil des Nahrungsstoffes wirklich erhält, abgesehen von den schädlichen Wirkungen auf seine Gesundheit“. Als Grund, warum „ein sehr großer Teil der Arbeiterklasse“, obgleich wohl unterrichtet über die Fälschungen, dennoch Alaun, Steinmehl etc. mit in den Kauf

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chase, that it is for them 'a matter of necessity to take from their baker or from the chandler's shop such bread as they choose to supply'. As they are not paid their wages before the end of the week, they in their turn are unable 'to pay for the bread consumed by their families during the week, before the end of the week', and Tremeneere adds on the evidence of witnesses, 'it is notorious that bread composed of those mixtures is made expressly for sale in this manner'. 'In many English agricultural districts' (and still more in Scottish) 'wages are paid fortnightly and even monthly; with such long intervals between the payments, the agricultural laborer is obliged to buy on credit ... He must pay higher prices, and is in fact tied to the shop which gives him credit. Thus at Horn- ington in Wilts., for example, where the wages are monthly, the same flour that he could buy elsewhere at 1s. 10d. per stone, costs him 2s. 4d. per stone' (Public Health, Sixth Report of the Medical Officer of the Privy Council, etc., 1864, p. 264). 'The block-printers of Paisley and Kilmarnock' (Western Scotland) 'enforced in 1833 by a strike the reduction of the period of payments from monthly to fortnightly' (Reports of the Inspectors of Factories ... 31 October 1853, p. 34). As a further nice development from the credit given by the workers to the capitalist, we may refer to the method adopted by many English coal-owners whereby the worker is not paid till the end of the month, and in the meantime receives sums on account from the capitalist, often in goods for which the miner is obliged to pay more than the market price (truck system). 'It is a common practice with the coal masters to pay once a month, and advance cash to their workmen at the end of each intermediate week. The cash is given in the shop' (i.e. the tommy-shop which belongs to the master); 'the men take it on one side and lay it out on the other' (Children's Employment Commission, Third Report, London, 1864, p. 38, n. 192).

nimmt, führt Tremeneere (l.c. p. XLVIII) an, daß es für sie „ein Ding der Notwendigkeit ist, von ihrem Bäcker oder dem chandler's shop das Brot zu nehmen, wie man es ihnen zu geben beliebt“. Da sie erst Ende der Arbeitswoche bezahlt werden, können sie auch „das während der Woche von ihren Familien verzehrte Brot erst Ende der Woche zahlen“; und, fügt Tremeneere mit Anführung der Zeugenaussagen hinzu: „Es ist notorisch, daß mit solchen Mixturen bereitetes Brot expreß für diese Art Kunden gemacht wird.“ („It is notorious that bread composed of those mixtures, is made expressly for sale in this manner.“) „In vielen englischen Agrikulturdistrikten“ (aber noch mehr in schottischen) „wird der Arbeitslohn vierzehntägig und selbst monatlich gezahlt. Mit diesen langen Zahlungsfristen muß der Agrikulturarbeiter seine Waren auf Kredit kaufen ... Er hat höhere Preise zu zahlen und ist tatsächlich an die Boutique gebunden, die ihm pumpt. So kostet ihm z.B. zu Horningsham in Wilts, wo die Löhnung monatlich, dasselbe Mehl 2 sh. 4 d. per stone, das er sonstwo mit 1 sh. 10 d. zahlt.“ („Sixth Report“ on „Public Health“ by „The Medical Officer of the Privy Council etc.“, 1864, p. 264.) „Die Kattun Handdrucker von Paisley und Kilmarnock“ (Westschottland) „erzwangen 1853 durch einen strike die Herabsetzung des Zahlungstermins von einem Monat auf 14 Tage.“ („Reports of the Inspectors of Factories for 31st Oct. 1853“, p. 34.) Als eine weitere artige Entwicklung des Kredits, den der Arbeiter dem Kapitalisten gibt, kann man die Methode vieler englischer Kohlenbergwerksbesitzer betrachten, wonach der Arbeiter erst Ende des Monats bezahlt wird und in der Zwischenzeit Vorschüsse vom Kapitalisten erhält, oft in Waren, die er über ihren Marktpreis zahlen muß (Trucksystem). „Es ist eine übliche Praxis der Kohlenherren, einmal im Monat auszuzahlen und ihren Arbeitern am Ende jeder dazwischenliegenden Woche Vorschuß zu geben. Dieser Vorschuß wird im Laden gegeben“ (nämlich dem tommy-shop oder dem Meister selbst gehörigen Kramladen). „Die Männer nehmen ihn auf der einen Seite des Ladens in Empfang und geben ihn auf der anderen wieder aus.“ („Children's Employment Commission, III. Report“, Lond. 1864, p. 38, n. 192.)

Question 744 Which "permanent consequences" of the laborer's forced lending to the capitalist does Marx describe in chapter Six? Are Marx's arguments still valid today?

Question 745 What do bread undersellers have to do with the fact that wages are paid after the labor is performed? 2001fa, 1997WI.

Question 746 If the worker gives credit to the capitalist, what is the reason that he is penalized for it instead of being rewarded? 2001fa, 1997WI.

Marx concludes this section about the worker's forced lending by saying that he will ignore these effects henceforth:

Whether money serves as a means of purchase or a means of payment, this does not alter the nature of the exchange of commodities. The price of the labor-power is fixed by the contract, although it is not realized till later, like the rent of a house. The labor-power is sold, although it is paid for only at a later period. It will therefore be useful, if we want to conceive the relation in its pure form, to presuppose for the moment that the owner of labor-power, on the occasion of each sale, immediately receives the price stipulated in the contract.

Indes ändert es an der Natur des Warenaustausches selbst nichts, ob das Geld als Kaufmittel oder als Zahlungsmittel funktioniert. Der Preis der Arbeitskraft ist kontraktlich festgesetzt, obgleich er erst hinterher realisiert wird, wie der Mietpreis eines Hauses. Die Arbeitskraft ist verkauft, obgleich sie erst hinterher bezahlt wird. Für die reine Auffassung des Verhältnisses ist es jedoch nützlich, einstweilen vorauszusetzen, daß der Besitzer der Arbeitskraft mit ihrem Verkauf jedesmal auch sogleich den kontraktlich stipulierten Preis erhält.

Question 747 It is often argued that labor-power is not really a commodity. Does labor-power meet the following criteria for being a commodity?

- (a) It is a non-use-value for its producer.
- (b) It is a use-value for the buyer.
- (c) Its use-value and its value are two quite different things.
- (d) It is produced for the exchange.

(e) Seller and buyer only meet on the market; the consumption of the commodity is a matter which does not concern the seller. 2009fa, 1999SP, 1997ut, 1997sp, 1996ut, 1996sp.

6.6. [From the Sphere of Circulation to Production]

185:1/o We now know the modalities of the determination of the value paid by the owner of money to the owner of this peculiar commodity, labor-power.

189:1 Wir kennen nun die Art und Weise der Bestimmung des Werts, welcher dem Besitzer dieser eigentümlichen Ware, der Arbeitskraft, vom Geldbesitzer gezahlt wird.

⇓ However the money owner buys labor-power only because its *consumption* creates more value than the value incorporated in the labor-power itself. We are therefore also interested in the *use-value* of the commodity labor-power.

The use-value which the former gets in exchange will only become apparent in the actual utilization, in the process of the consumption of the labor-power.

Der Gebrauchswert, den letzterer seinerseits im Austausch erhält, zeigt sich erst im wirklichen Verbrauch, im Konsumtionsprozeß der Arbeitskraft.

This last sentence is an echo of 46:1. Generally, use-values are not part of the subject-matter of political economy. We are looking here at the use-value of labor-power only because labor-power is an exception. Its use-value is economically relevant because the use

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of labor-power creates value. In order to understand *how* the commodity labor-power obtains its miraculous ability to create surplus-value, we must look at the process in which the commodity labor-power is consumed.

The money-owner buys everything necessary for this process, such as raw material, in the market, and pays the full price for it. The process of consumption of labor-power is at the same time the process of production of commodities and of surplus-value.

Alle zu diesem Prozeß nötigen Dinge, wie Rohmaterial usw., kauft der Geldbesitzer auf dem Warenmarkt und zahlt sie zum vollen Preis. Der Konsumtionsprozeß der Arbeitskraft ist zugleich der Produktionsprozeß von Ware und von Mehrwert.

↓ What happens next will be described in the next chapter, 194:2/o. This is the part of the creation of surplus-value which does *not* take place in the sphere of circulation. The rest of the current chapter gives some concluding remarks before we leave circulation behind in order to enter the sphere of production.

The consumption of labor-power, as that of every other commodity, takes place outside the market or the sphere of circulation. Let us therefore, in company with the owner of money and the owner of labor-power, leave this noisy sphere, which occupies the surface, and is in full view of everyone, and follow them into the hidden abode of production, on whose threshold there hangs the notice 'No admittance except on business'. Here it will turn out, not only how capital produces, but how capital itself is produced. The secret of profit-making must at last be laid bare.

Die Konsumtion der Arbeitskraft, gleich der Konsumtion jeder andren Ware, vollzieht sich außerhalb des Markts oder der Zirkulationssphäre. Diese geräuschvolle, auf der Oberfläche hausende und aller Augen zugängliche Sphäre verlassen wir daher, zusammen mit Geldbesitzer und Arbeitskraftbesitzer, um beiden nachzufolgen in die verborgene Stätte der Produktion, an deren Schwelle zu lesen steht: No admittance except on business. Hier wird sich zeigen, nicht nur wie das Kapital produziert, sondern auch wie man es selbst produziert, das Kapital. Das Geheimnis der Plusmacherei muß sich endlich enthüllen.

In this chapter, we have made good progress towards the explanation how profits can be made if all commodities are sold at their values. By an elimination argument we have arrived at the commodity labor-power as our only candidate through which this is possible. We know now under which conditions labor-power is a commodity, and how the value of this commodity is determined. The only remaining step is to verify that the consumption of labor-power creates more value than labor-power itself costs. For this, a detailed look at the consumption of the commodity labor-power has become necessary. This will not be done here but in chapter Seven. Here, at the end of chapter Six, Marx throws a last look back at the sphere of circulation:

186:1 The sphere of circulation or commodity exchange, within whose boundaries the sale and purchase of labor-power goes on, is in fact a very Eden of the innate rights of man. It is the exclusive realm of Freedom, Equality, Property and Bentham. Freedom, because both buyer and seller of a commodity, let us say of labor-power, are determined only by their own free will. They contract as free persons,

189:2/o Die Sphäre der Zirkulation oder des Warenaustausches, innerhalb deren Schranken Kauf und Verkauf der Arbeitskraft sich bewegt, war in der Tat ein wahres Eden der angeborenen Menschenrechte. Was allein hier herrscht, ist Freiheit, Gleichheit, Eigentum und Bentham. Freiheit! Denn Käufer und Verkäufer einer Ware, z.B. der Arbeitskraft, sind nur durch ihren freien Willen bestimmt. Sie kontrahieren als freie, recht-

who are equal before the law. Their contract is the final result in which their joint will finds a common legal expression. Equality, because each enters into relation with the other, as with a simple owner of commodities, and they exchange equivalent for equivalent. Property, because each disposes only of what is his own. And Bentham, because each looks only to his own advantage. The only force bringing them together, and putting them into relation with each other, is the selfishness, the gain and the private interest of each. Each pays heed to himself only, and no one worries about the others. And precisely for that reason, either in accordance with the pre-established harmony of things, or under the auspices of an all-cunning providence, they all work together to their mutual advantage, for the common weal, and in the common interest.

lich ebenbürtige Personen. Der Kontrakt ist das Endresultat, worin sich ihre Willen einen gemeinsamen Rechtsausdruck geben. Gleichheit! Denn sie beziehen sich nur als Warenbesitzer aufeinander und tauschen Äquivalent für Äquivalent. Eigentum! Denn jeder verfügt nur über das Seine. Bentham! Denn jedem von den beiden ist es nur um sich zu tun. Die einzige Macht, die sie zusammen und in ein Verhältnis bringt, ist die ihres Eigennutzes, ihres Sondervorteils, ihrer Privatinteressen. Und eben weil so jeder nur für sich und keiner für den andren kehrt, vollbringen alle, infolge einer prästabilierten Harmonie der Dinge oder unter den Auspizien einer allpffiffigen Vorsehung, nur das Werk ihres wechselseitigen Vorteils, des Gemeinnutzens, des Gesamtinteresses.

Illusions of the sphere of circulation: Freedom, Equality, Property, Bentham (Theoretician of utilitarianism, the doctrine that the private interests of the individuals automatically combine to the general interest). More about Bentham on p. 604:2/oo.

Question 749 *Does the sphere of commodity circulation contradict the principles of freedom and equality? Are these principles violated under capitalism? 2004fa, 2003fa.*

⇓ A look at the faces of capitalist and worker shows us that Bentham cannot be right.

186:2 When we leave this sphere of simple circulation or the exchange of commodities, which provides the ‘free-trader vulgaris’ with his views, his concepts, and the standard, by which he judges the society of capital and wage-labor, a certain change seems to take place in the physiognomy of our dramatis personae. He who was previously the money-owner now strides out in front as a capitalist; the possessor of labor-power follows as his worker. The one smirks self-importantly and is intent on business; the other is timid and holds back, like a sheep bringing his own wool to market which now has nothing else to expect but—a good fleecing.

190:1/o Beim Scheiden von dieser Sphäre der einfachen Zirkulation oder des Warenaustausches, woraus der Freihändler vulgaris Anschauungen, Begriffe und Maßstab für sein Urteil über die Gesellschaft des Kapitals und der Lohnarbeit entlehnt, verwandelt sich, so scheint es, schon in etwas die Physiognomie unsrer dramatis personae. Der ehemalige Geldbesitzer schreitet voran als Kapitalist, der Arbeitskraftbesitzer folgt ihm nach als sein Arbeiter; der eine bedeutungsvoll schmunzelnd und geschäftseifrig, der andre scheu, widerstrebsam, wie jemand, der seine eigne Haut zu Markt getragen und nun nichts andres zu erwarten hat als die—Gerberei.

I substituted the sheep metaphor for Marx’s tanning metaphor: “like someone who has brought

his own hide to market and now has nothing else to expect but—a tanning.” “Tanning” nowadays

means: getting a sun-tanned skin.

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↑ One has to be intimately familiar with capitalist society—a familiarity which usually only comes with living in this society—in order to know, or to be able to imagine, the facial expressions of capitalist and newly-hired worker as they walk together to the workshop. Marx appeals here to the tacit knowledge of the members of capitalist society in order to call the surface appearance into question that the sale of labor-power is an equitable exchange. The distraught look of the worker betrays the premonition that selling one's own skin may not be a favorable bargain.

Part III.

The Production of Absolute Surplus-Value

7. Labor Process and Valorization Process

Humans have the ability to change the world around them in such a way that it serves their purposes. The exercise of this miraculous power is called “labor,” a word which connotes that this is often a strenuous effort. For humans, the exercise of this ability is not only possible but also necessary, because they need the fruits of their labor in order to survive. Chapter Seven analyzes this process and its social form under capitalism. Marx tried to be very detailed in this analysis, nevertheless he missed an important aspect of every production process: along with the useful products every production process also generates a stream of waste.

7.1. Labor Process

As announced at the end of chapter Six, we are leaving circulation behind in order to witness the consumption of the commodity labor-power. Throughout the present chapter Seven, the money owner from the end of chapter Six, 185:1/o, is with us. He has bought the commodity labor-power and is about to consume it. We are observing him closely, because we have to solve the final part of the riddle how surplus-value is made. As Marx said at the end of chapter Five, 176:3/o, the solution of the riddle must lie both in circulation and not in circulation. Chapter Six looked at the part in circulation, and the present chapter looks at the part *not* in circulation.

The Moore-Aveling translation reminds the reader of the presence of the capitalist in the first sentence of the chapter, which reads: “The capitalist buys labor-power in order to use it; and the utilization of labor-power is labor itself.” However the text below follows here the German Fourth edition with a shorter first sentence that does not mention the capitalist in the first sentence (but refers to it obliquely in the second sentence and some later places).

187:1 The utilization of labor-power is labor itself. The buyer of labor-power consumes it by setting the seller of labor-power to work. Thereby the latter becomes in actuality what he was previously only potentially, namely a worker, labor-power in action.

192:1 Der Gebrauch der Arbeitskraft ist die Arbeit selbst. Der Käufer der Arbeitskraft konsumiert sie, indem er ihren Verkäufer arbeiten läßt. Letzterer wird hierdurch actu sich betätigende Arbeitskraft, Arbeiter, was er früher nur potentia war.

↓ The purpose of the consumption of labor-power by the capitalist is the representation of this labor in a commodity:

In order to represent his labor in commodities, the worker must, above all, represent it in use-values, in things which aid the satisfaction of needs of one kind or another. Hence what the capitalist sets the worker to

Um seine Arbeit in Waren darzustellen, muß er sie vor allem in Gebrauchswerten darstellen, Sachen, die zur Befriedigung von Bedürfnissen irgendeiner Art dienen. Es ist also ein besonderer Gebrauchswert, ein be-

produce is a particular use-value, a specific article.

stimmter Artikel, den der Kapitalist vom Arbeiter anfertigen läßt.

↑ The capitalist is not interested in use-value of this commodity, but in its value. He hires the worker in order to produce commodities which contain value. A specific use-value must be produced only because human labor can be objectified only in a specific form, see 30:2/o about this. Therefore the capitalist must produce a use-value.

Some things can be said about this production process which do not depend on it being a capitalistic production process. ↓ Production of use-values must follow certain general characteristics which are independent of the social relations.

The fact that the production of use-values, or goods, is carried out under the control of a capitalist and on his behalf, does not alter the general character of that production. The labor process must therefore at first be considered independently of any specific social form.

Die Produktion von Gebrauchswerten oder Gütern ändert ihre allgemeine Natur nicht dadurch, daß sie für den Kapitalisten und unter seiner Kontrolle vorgeht. Der Arbeitsprozeß ist daher zunächst unabhängig von jeder bestimmten gesellschaftlichen Form zu betrachten.

↑ Obviously, the labor process is very much influenced by society. Why does Marx then say that its *general* nature is independent of social relations? Because besides all its social determinations, the labor process also has to contend with natural forces and natural constraints which are independent of society. Marx says more about this in 194:1.

7.1.a. [The General Nature of Labor, Independently of its Social Form]

[Labor as a Process Between Man and Nature]

187:2/o Labor is at first a process between man and nature, a process by which man mediates, regulates and controls his metabolism with nature through his own actions.

192:2/o Die Arbeit ist zunächst ein Prozeß zwischen Mensch und Natur, ein Prozeß, worin der Mensch seinen Stoffwechsel mit der Natur durch seine eigne Tat vermittelt, regelt und kontrolliert.

↑ Marx says “at first” because the parties entering this process, humans and nature, can and must be defined much better. For instance, Marx does not say here that production is necessarily a co-operative process and that almost all inputs to labor are the products of past labor.

↓ Immediately after saying that the labor process is an aspect of human life itself, Marx brings the negation: The labor process is an activity in which humans act as a natural force.

He confronts the natural materials as a force of nature. He sets in motion the natural forces that belong to his own body, his arms and legs, head and hands, in order to appropriate the natural materials in a form useful for his own life.

Er tritt dem Naturstoff selbst als eine Naturmacht gegenüber. Die seiner Leiblichkeit angehörigen Naturkräfte, Arme und Beine, Kopf und Hand, setzt er in Bewegung, um sich den Naturstoff in einer für sein eignes Leben brauchbaren Form anzueignen.

↑ Negation of the negation: from this human-directed interaction between natural forces emerges a result which does not only depend on nature but which shapes the exterior nature according to human needs and purposes. ↓ This is why Marx says that the labor process *changes the nature* external to the worker. Unfortunately Marx is not more specific about

7. Labor Process and Valorization Process

this. Today we know that the changes reach deeper and are more irreversible than Marx could have imagined.

While acting upon external nature and changing it, he also changes his own nature. He develops the potentialities slumbering within his nature, and subordinates the play of its powers to his command.

Indem er durch diese Bewegung auf die Natur außer ihm wirkt und sie verändert, verändert er zugleich seine eigne Natur. Er entwickelt die in ihr schlummernden Potenzen und unterwirft das Spiel ihrer Kräfte seiner eignen Botmäßigkeit.

↑ An additional effect of the labor process, usually not intended and often overlooked, is that in this process, humans also change their *own* nature. Labor not only creates novelty in outside nature, but it is so-to-say nature's revenge that this same process also creates novelty in the nature of the producer. This is the negation of the negation of the negation.

Question 751 *Is it true that the labor process changes nature? It certainly changes natural things into other natural things, but it only uses the forces of nature to do this. Which arguments can be given to support Marx's claim that it changes nature itself?* 2012fa, 2010fa.

Question 752 *Give examples how humans change nature by labor, and how they change their own nature by labor.* 2013fa, 2012fa, 2011fa.

↓ Some of the characteristics of the human labor process are shared by certain activities of animals. Bees, for instance, effect a change of form in the materials of nature when they construct their honeycomb. But the human labor process has one important aspect which is not shared by animals—at least not as of the state of knowledge at Marx's time:

We are not dealing here with those first instinctive forms of labor which remain on the animal level. An immense interval of time separates the state of things in which a man brings his labor-power to market for sale as a commodity from the situation when human labor had not yet cast off its first instinctive form.

Wir haben es hier nicht mit den ersten tierartig instinktmäßigen Formen der Arbeit zu tun. Dem Zustand, worin der Arbeiter als Verkäufer seiner eignen Arbeitskraft auf dem Warenmarkt auftritt, ist in urzeitlichen Hintergrund der Zustand entrückt, worin die menschliche Arbeit ihre erste instinktartige Form noch nicht abgestreift hatte.

↑ Marx reminds us here why he is looking at this. He is not philosophizing in a vacuum but the present discussion takes the first steps towards understanding the creation of surplus-value. This should not be misunderstood to mean that Marx is only looking at the capitalist labor process. As he says in 187:1, right now he is looking at the labor process independently of its social form.

We presuppose labor in a form in which it is an exclusively human characteristic. A spider conducts operations which resemble those of the weaver, and a bee would put many a human architect to shame by the construction of its honeycomb cells.

Wir unterstellen die Arbeit in einer Form, worin sie dem Menschen ausschließlich angehört. Eine Spinne verrichtet Operationen, die denen des Webers ähneln, und eine Biene beschämt durch den Bau ihrer Wachszellen manchen menschlichen Baumeister.

↓ After the similarities between human labor and the activities of animals, Marx brings, in a famous passage, the difference between human labor and the activities of bees and spiders. But what distinguishes the worst architect from the best of bees is that the architect

Was aber von vornherein den schlechtesten Baumeister vor der besten Biene auszeich-

builds the cell in his mind before he constructs it in wax. At the end of every labor process, a result emerges which had already been conceived by the worker at the beginning, hence already existed notionally. Man not only effects a change of form in the materials of nature; while doing this he realizes his own purpose in the natural realm. It is a purpose he is conscious of, it determines the mode of his activity as a law, and he must subordinate his will to this purpose.

net, ist, daß er die Zelle in seinem Kopf gebaut hat, bevor er sie in Wachs baut. Am Ende des Arbeitsprozesses kommt ein Resultat heraus, das beim Beginn desselben schon in der Vorstellung des Arbeiters, also schon ideell vorhanden war. Nicht daß er nur eine Formveränderung des Natürlichen bewirkt; er verwirklicht im Natürlichen zugleich seinen Zweck, den er weiß, der die Art und Weise seines Tuns als Gesetz bestimmt und dem er seinen Willen unterordnen muß.

↑ In production, humans know and intend the effects of their actions. This intended effect is called here the *purpose*. Production is governed by purpose. More about the difference between humans and animals can be found in [mecw3]276:3 and [mecw3]276:4/o.

Since it is a conscious process, it is communicated between humans and subject to learning. Therefore it is much faster to natural evolution, it does not give nature enough time to take corrective actions. This yields another difference between the labor of bees and the human production process, which Marx does not seem aware of: Bees are part of an entire ecosystem which has balanced itself out over the millions of years. Therefore any wastes they leave behind are utilized by other species, while human industrial production is unsustainable. Regarding renewable energy at Marx's time look at [Etz36], and general historical info in [Mad11].

But back to the intentions. In *Philosophy of Right*, §117, Hegel discusses unintentional consequences of volitional activity. In the Hegelian paradigm, humans are free to pursue their wills. If their actions have consequences which the humans could not know, i.e., which are not included in their purpose, then they are not liable for them. I.e., in Hegel's moral and legal framework, the will matters, while the actual consequences of the willful acts are secondary. In production the relationship is reversed: what matters is the actual effect, and the worker has to subordinate his or her will to the achievement of this effect. The worker has to subordinate his will to his purpose—but on the other hand he also has to *want* his purpose. ↓ The contradictory unity between will and purpose is called, in the next passage, the purposeful will.

Question 753 What, according to Marx, distinguishes human labor from the labor of an animal or a machine? 2013fa, 2012fa, 2011fa, 2010fa.

Question 754 What does Marx mean with: Man has to subordinate his will to his purpose?

Question 755 What purpose does a human realize in the labor process? Does this purpose depend on his or her will? Give examples where someone fulfills a purpose which does not depend on his or her will. 2012fa.

↓ Another characteristic of the labor process is that it requires *sustained* effort.

This subordination is no mere momentary act. Apart from the exertion of his organs, a purposeful will is required for the entire duration of the labor process, which manifests itself as the worker's attention. The less the worker is swept along by the work's

Und diese Unterordnung ist kein vereinzelter Akt. Außer der Anstrengung der Organe, die arbeiten, ist der zweckmäßige Wille, der sich als Aufmerksamkeit äußert, für die ganze Dauer der Arbeit erheischt, und um so mehr, je weniger sie durch den eignen In-

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own content and the mode how it is carried out, the less, therefore, he enjoys it as the spontaneous play of his physical and mental powers, the closer his attention is forced to be.

halt und die Art und Weise ihrer Ausführung den Arbeiter mit sich fortreißt, je weniger er sie daher als Spiel seiner eignen körperlichen und geistigen Kräfte genießt.

I am inserting “spontaneous” in front of “play,” where the

translations had written “free,” but Marx’s German edition had not

used an attribute at all.

Question 756 *What distinguishes human labor from play?* 2012fa, 2011fa, 2010fa.

↑ This concludes Marx’s characterization of the essence of the human labor-process. Marx does not even begin to explain *how* humans manage to subordinate nature to suit their purposes. Although we are doing it every day, we don’t know how we are doing it. ↓ All that Marx can do is enumerate general characteristics which most labor processes have in common.

188:1 The simple moments of the labor process are (1) purposeful activity, that is work itself, (2) the object on which that work is performed, and (3) the instruments of that work.

193:1 Die einfachen Momente des Arbeitsprozesses sind die zweckmäßige Tätigkeit oder die Arbeit selbst, ihr Gegenstand und ihr Mittel.

Question 757 *What does Marx understand by a “moment”? What are the simple moments of the commodity? What are the simple moments of the labor process?*

↑ Earlier, in 53:1, Marx had said that labor needs nature to produce its product. Now, he gives a rough classification of all the ingredients of most labor processes besides labor itself.

[Object of Labor]

Marx first discusses the object of labor, then the instruments of labor, and then the conditions of the labor process (premises etc). Among the objects of labor, Marx distinguishes between two kinds, those filtered through earlier labor, and those directly furnished by nature:

188:2 The land (and this, economically speaking, includes water bodies) in its original state in which it supplies man with necessities or means of subsistence ready to hand¹ is available without any effort on his part as the universal object of human labor.

193:2 Die Erde (worunter ökonomisch auch das Wasser einbegriffen), wie sie den Menschen ursprünglich mit Proviant, fertigen Lebensmitteln ausrüstet,¹ findet sich ohne sein Zutun als der allgemeine Gegenstand der menschlichen Arbeit vor.

Natural resources are the “general object of human labor.” Marx is aware that the labor process must have an object to work on. This awareness has been lost in modern production functions which have machines and labor but often no natural resources.

¹ ‘The earth’s spontaneous productions being in small quantity, quite independent of man, appear, as it were, to be furnished by Nature, in the same way as a small sum is given to a young man, in order to put him in a way of industry and of making his fortune’ (James Steuart, *Principles of Political Economy*, Dublin, 1770, Vol. I, p. 116).

¹ „Die naturwüchsigen Erzeugnisse der Erde, die in geringen Mengen und ganz unabhängig vom Menschen vorkommen, scheinen von der Natur in der gleichen Art gegeben zu sein, wie man einem jungen Mann eine knappe Summe gibt, um ihn auf den Weg des Fleißes und des Reichwerdens zu führen.“ James Steuart, *Prin-*

ciples of Political Economy, edit. Dublin 1770, v. I, p. 116.

↑ Marx could have said something here because capitalism does not use the natural resources sustainably. More generally, there is a contradiction between the necessity of natural resources for every production process, and the exhaustibility of the many non-renewable natural resources. Marx does not elaborate on this.

All those things which labor merely separates from immediate connection with their environment are objects of labor spontaneously provided by nature, such as fish caught and separated from water, their natural element, timber felled in virgin forests, and ores extracted from their veins.

Alle Dinge, welche die Arbeit nur von ihrem unmittelbaren Zusammenhang mit dem Erdganzen loslöst, sind von Natur vorgefundne Arbeitsgegenstände. So der Fisch, der von seinem Lebensselement, dem Wasser, getrennt, gefangen wird, das Holz, das im Urwald gefällt, das Erz, das aus seiner Ader losgebrochen wird.

Fish and timber are renewable resources, ore is not. Marx does not seem aware how much difference this makes.

If, on the other hand, the object of labor has, so to speak, been filtered through previous labor, we call it raw material. For example, ore already extracted and ready for washing. All raw material is an object of labor, but not every object of labor is raw material; the object of labor counts as raw material only when it has already undergone some alteration mediated by labor.

Ist der Arbeitsgegenstand dagegen selbst schon sozusagen durch frühere Arbeit filtriert, so nennen wir ihn Rohmaterial. Z.B. das bereits losgebrochene Erz, das nun ausgewaschen wird. Alles Rohmaterial ist Arbeitsgegenstand, aber nicht jeder Arbeitsgegenstand ist Rohmaterial. Rohmaterial ist der Arbeitsgegenstand nur, sobald er bereits eine durch Arbeit vermittelte Veränderung erfahren hat.

Objects of labor “spontaneously provided by nature” (fish, timber from virgin forests) are here distinguished from “raw materials” (which are already improved, iron ore which already passed through an enrichment process). Cohen in [Coh80, p. 39] criticizes this definition of raw materials. Cohen says: “Something is raw material in a labor process if and only if it is the purpose of the process to transform it . . . Its previous history, and in particular whether labor has already been spent on it, are irrelevant.” I do not think Cohen’s critique is justified. Whether or not something is relevant depends on the context. As a process between humankind and nature, the distinction between objects directly furnished by nature and objects already filtered through prior labor is relevant. For the mechanics of the individual production processes, this distinction is irrelevant.

[Means or Instruments of Labor]

The words “means of labor” and “instruments of labor” will be used here interchangeably. The first paragraph brings their definition:

An instrument of labor is a thing, or a complex of things, which the laborer interposes between himself and the object of labor, and which serves as the conductor of his activity. He makes use of the mechanical, physical, and chemical properties of some things in order to force, according to his pur-

194:1/o Das Arbeitsmittel ist ein Ding oder ein Komplex von Dingen, die der Arbeiter zwischen sich und den Arbeitsgegenstand schiebt und die ihm als Leiter seiner Tätigkeit auf diesen Gegenstand dienen. Er benutzt die mechanischen, physikalischen, chemischen Eigenschaften der Dinge, um

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pose, an effect on other things.²

sie als Machtmittel auf andre Dinge, seinem Zweck gemäß, wirken zu lassen.²

↑ The interjection of these physical things between the laborer and the object of labor makes the paradox more clearly visible which was already addressed in the earlier formulation that humans *change nature* through the labor process: although the instruments of labor act on the objects of labor according to natural laws, the end effect is not determined by nature but follows human intentions. ↓ The footnote compares this with Hegel's "cunning of reason."

² "Reason is just as cunning as she is powerful. Her cunning consists principally in her mediating activity, which, by causing objects to act and re-act on each other in accordance with their own nature, in this way, without any direct interference in the process, carries out reason's intentions." (Hegel: "Enzyklopädie, Erster Theil, Die Logik," Berlin, 1840, p. 382.)

² „Die Vernunft ist ebenso listig als mächtig. Die List besteht überhaupt in der vermittelnden Tätigkeit, welche, indem sie die Objekte ihrer eigenen Natur gemäß aufeinander einwirken und sich aneinander abarbeiten läßt, ohne sich unmittelbar in diesem Prozeß einzumischen, gleichwohl nur ihren Zweck zur Ausführung bringt.“ (Hegel, „Enzyklopädie“, Erster Teil, „Die Logik“, Berlin 1840, p. 382.)

↓ The laborer handles the instruments of labor directly, but most of the objects of labor only indirectly (namely, through the instruments of labor).

Leaving out of consideration such ready-made means of subsistence as fruits, in gathering which a man's own limbs serve as the instruments of his labor, the thing of which the laborer possesses himself directly is not the object of labor but its instrument.

Der Gegenstand, dessen sich der Arbeiter unmittelbar bemächtigt—abgesehen von der Ergreifung fertiger Lebensmittel, der Früchte z.B., wobei seine eignen Leibesorgane allein als Arbeitsmittel dienen—ist nicht der Arbeitsgegenstand, sondern das Arbeitsmittel.

↑ This observation will be relevant for the development of machinery. In the early machines, the human laborer holding tools is replaced by mechanical frames holding very similar tools, see 376:2/o. ↓ Marx continues to say that the instruments of labor can be considered an extension of the laborer's body:

Thus Nature itself becomes one of the organs of his activity, one that he annexes to his own bodily organs, adding stature to himself in spite of the Bible.

So wird das Natürliche selbst zum Organ seiner Tätigkeit, ein Organ, das er seinen eignen Leibesorganen hinzufügt, seine natürliche Gestalt verlängernd, trotz der Bibel.

Question 758 *Is it correct to say that nature is the ultimate producer, and man only manipulates nature for his own benefit? Compare this with the parallel statement: the worker is the ultimate producer, and the capitalist only manipulates the worker to take advantage of him.* 2010fa.

↓ Now a listing of the instruments of labor, again distinguishing those directly given by nature from those produced by earlier labor.

As the earth is his original larder, so too it is his original tool shed. It supplies him, for instance, with stones for throwing, grinding, pressing, cutting, etc. The earth itself is an instrument of labor, but its use as such in agriculture implies a whole series of other

Wie die Erde seine ursprüngliche Proviantkammer, ist sie sein ursprüngliche Arsenal von Arbeitsmitteln. Sie liefert ihm z.B. den Stein, womit er wirft, reibt, drückt, schneidet usw. Die Erde selbst ist ein Arbeitsmittel, setzt jedoch zu ihrem Dienst als Arbeits-

instruments and a comparatively high development of labor.³ No sooner does labor undergo the least development, than it requires instruments which are themselves prepared by labor.

³ In his otherwise miserable work (“Théorie de l’Écon. Polit.” Paris, 1815), Ganiilh enumerates in a striking manner in opposition to the “Physiocrats” the long series of previous processes necessary before agriculture properly so called can commence.

↑ Even the most primitive labor processes need specially produced means of labor. ↓ This gives the transition to a discussion of the role of instruments of labor in the evolution of human history:

Thus in the oldest caves we find stone implements and weapons. In the earliest period of human history domesticated animals, *i.e.*, animals which have been bred for the purpose, and have undergone modifications by means of labor, play the chief part as instruments of labor along with specially prepared stones, wood, bones, and shells.⁴ The use and fabrication of instruments of labor, although existing in the germ among certain species of animals, is specifically characteristic of the human labor-process, and Franklin therefore defines man as a tool-making animal.

⁴ Turgot in his “Réflexions sur la Formation et la Distribution des Richesses” (1766) brings well into prominence the importance of domesticated animals to early civilisation.

mittel in der Agrikultur wieder eine ganze Reihe anderer Arbeitsmittel und eine schon relativ hohe Entwicklung der Arbeitskraft voraus.³ Sobald überhaupt der Arbeitsprozeß nur einigermaßen entwickelt ist, bedarf er bereits bearbeiteter Arbeitsmittel.

³ In der sonst elenden Schrift: „Théorie de l’Écon. Polit.“, Paris 1815, zählt Ganiilh den Physiokraten gegenüber treffend die große Reihe von Arbeitsprozessen auf, welche die Voraussetzung der eigentlichen Agrikultur bilden.

In den ältesten Menschenhöhlen finden wir Steinwerkzeuge und Steinwaffen. Neben bearbeitetem Stein, Holz, Knochen und Muscheln spielt im Anfang der Menschengeschichte das gezähmte, also selbst schon durch Arbeit veränderte, gezüchtete Tier die Hauptrolle als Arbeitsmittel.⁴ Der Gebrauch und die Schöpfung von Arbeitsmitteln, obgleich im Keim schon gewissen Tierarten eigen, charakterisieren den spezifisch menschlichen Arbeitsprozeß, und Franklin definiert daher den Menschen als „a tool-making animal“, ein Werkzeuge fabrizierendes Tier.

⁴ In den „Réflexions sur la Formation et la Distribution des Richesses“ (1766) entwickelt Turgot gut die Wichtigkeit des gezähmten Tiers für die Anfänge der Kultur.

Question 759 *Is the soil into which the farmer puts his seeds an instrument of labor or the object of labor?* 2012fa, 2011fa.

↓ The means of labor are central for the historical epoch.

Relics of bygone instruments of labor possess the same importance for the investigation of extinct economic forms of society, as do fossil bones for the determination of extinct species of animals. It is not the articles made, but how they are made, and by what instruments, that enables us to distinguish different economic epochs.⁵

Dieselbe Wichtigkeit, welche der Bau von Knochenreliquien für die Erkenntnis der Organisation untergegangener Tiergeschlechter, haben Reliquien von Arbeitsmitteln für die Beurteilung untergegangener ökonomischer Gesellschaftsformationen. Nicht was gemacht wird, sondern wie, mit welchen Arbeitsmitteln gemacht wird, unterscheidet die ökonomischen Epochen.⁵

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⁵ The least important commodities of all for the technological comparison of different epochs of production are articles of luxury, in the strict meaning of the term.

↑ Not what is produced but how it is produced is distinctive.

Instruments of labor not only supply a standard of the degree of development to which human labor has attained, but they are also indicators of the social conditions under which that labor is carried on.

⁵ Von allen Waren sind eigentliche Luxuswaren die unbedeutendsten für die technologische Vergleichung verschiedener Produktionsepochen.

Die Arbeitsmittel sind nicht nur Gradmesser der Entwicklung der menschlichen Arbeitskraft, sondern auch Anzeiger der gesellschaftlichen Verhältnisse, worin gearbeitet wird.

Question 760 In 285:1/o, Marx says that the instruments of labor give more historical insight than what was produced. Why? 2013fa.

Among the instruments of labor, those of a mechanical nature, which, taken as a whole, we may call the bone and muscles of production, offer much more decided characteristics of a given epoch of production, than those which, like pipes, tubs, baskets, jars, etc., serve only to hold the materials for labor, which latter class, we may in a general way, call the vascular system of production. The latter first begins to play an important part in the chemical industries.^{5a}

^{5a} However little our written histories up to this time notice the development of material production, which is the basis of all social life, and therefore of all real history, yet prehistoric times have been classified in accordance with the results, not of so-called historical, but of materialistic investigations. These periods have been divided, to correspond with the materials from which their implements and weapons were made, viz., into the stone, the bronze, and the iron ages.

Unter den Arbeitsmitteln selbst bieten die mechanischen Arbeitsmittel, deren Gesamtheit man das Knochen und Muskelsystem der Produktion nennen kann, viel entscheidendere Charaktermerkmale einer gesellschaftlichen Produktionsepoch als solche Arbeitsmittel, die nur zu Behältern des Arbeitsgegenstandes dienen und deren Gesamtheit ganz allgemein als das Gefäßsystem der Produktion bezeichnet werden kann, wie z.B. Röhren, Fässer, Körbe, Krüge usw. Erst in der chemischen Fabrikation spielen sie eine bedeutungsvolle Rolle.^{5a}

^{5a} Note zur 2. Ausg. So wenig die bisherige Geschichtsschreibung die Entwicklung der materiellen Produktion, also die Grundlage alles gesellschaftlichen Lebens und daher aller wirklichen Geschichte kennt, hat man wenigstens die vorhistorische Zeit auf Grundlage naturwissenschaftlicher, nicht sog. historischer Forschungen nach dem Material der Werkzeuge und Waffen in Steinalter, Bronzealter und Eisenalter abgeteilt.

[Means of Labor Defined More Broadly]

↓ The labor process has other means than those discussed so far. In *Results*, Marx calls them “conditions of labor.”

In a wider sense we may include among the instruments of labor, in addition to those things that are used for directly transferring labor to its object, and which therefore, in one way or another, serve as conductors of the activity, all such objects as are necessary

195:1 Im weitren Sinn zählt der Arbeitsprozeß unter seine Mittel außer den Dingen, welche die Wirkung der Arbeit auf ihren Gegenstand vermitteln und daher in einer oder der andren Weise als Leiter der Tätigkeit dienen, alle gegenständlichen Be-

for carrying on the labor-process. These do not enter directly into the process, but without them it is either impossible for it to take place at all, or possible only to a partial extent. Once more we find the earth to be a universal instrument of this sort, for it furnishes a locus standi to the laborer and a field of employment for his activity. Among instruments that are the result of previous labor and also belong to this class, we find workshops, canals, roads, and so forth.

↑ These are the “premises” which Cohen [Coh80] lists separately.

This concludes the discussion of the material ingredients entering the labor process. Why does Marx go into all this detail? He does not claim to be able to explain how the miraculous effects of the labor process come about. It is general knowledge that people can change nature through their work, that people need the fruits of their labor in order to survive, and historical experience shows that each labor-process roughly has the above ingredients: labor itself, the object of labor, the instruments of labor, and the broader conditions of labor. In capitalism, control over these different ingredients of the labor process falls to different classes: labor itself is controlled by the working class, the produced instruments and object of labor by the capitalist class, and those instruments and objects furnished by nature by the land-owning class.

Question 761 *Where are the telephone, clocks, measuring systems and norms, etc. in this classification?*

7.1.b. [The Product]

↓ After this review of the ingredients of the labor process, Marx looks now at the product emerging from it:

[The Product as Objectification of the Labor Process]

190:2/o In the labor-process, therefore, human activity, through the instruments of labor, effects an alteration in the material worked upon which was intended from the outset. The process extinguishes itself in the product.

↑ “The process extinguishes itself in the product” is a Hegelian formulation, see [Heg69, p. 435] and elsewhere. It means first of all that the process stops after the product is made. The product is not the excrement of a process which keeps going for reasons other than the product, but the process only continues if more product is needed. Furthermore it means that the desired effect of the product, for consumption or for further stages of production, only depends on the physical makeup of the product itself, not on the labor process.

This phrase also has another connotation: after the energy spent during the production process has been dissipated, the world does not revert to the prior status but one new enduring thing remains, namely the product. If Marx meant to say this, he overlooks an important

dingungen, die überhaupt erheischt sind, damit der Prozeß stattfindet. Sie geht nicht direkt in ihn ein, aber er kann ohne sie gar nicht oder nur unvollkommen vorgehen. Das allgemeine Arbeitsmittel dieser Art ist wieder die Erde selbst, denn sie gibt dem Arbeiter den locus standi und seinem Prozeß den Wirkungsraum (field of employment). Durch die Arbeit schon vermittelte Arbeitsmittel dieser Art sind z.B. Arbeitsgebäude, Kanäle, Straßen usw.

195:2 Im Arbeitsprozeß bewirkt also die Tätigkeit des Menschen durch das Arbeitsmittel eine von vornherein bezweckte Veränderung des Arbeitsgegenstandes. Der Prozeß erlischt im Produkt.

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aspect of every material production process: it not only generates the intended product but it also necessarily generates waste products.

The product is a use-value, a natural material adapted to human needs by a change of form. Labor has become bound up in its object: labor has been objectified, the object processed by labor.

Sein Produkt ist ein Gebrauchswert, ein durch Formveränderung menschlichen Bedürfnissen angeeigneter Naturstoff. Die Arbeit hat sich mit ihrem Gegenstand verbunden. Sie ist vergegenständlicht, und der Gegenstand ist verarbeitet.

↑ The end product is the combination of materials and labor in which both are still recognizable. Typically, the materials are easily recognizable; they only changed their shape. ↓ But the labor is still recognizable as well: a thread reveals spinning labor, etc.

That which in the laborer appeared as movement, now appears in the product as a fixed quality without motion. The blacksmith forges and the product is a forging.

Was auf seiten des Arbeiters in der Form der Unruhe erschien, erscheint nun als ruhende Eigenschaft, in der Form des Seins, auf seiten des Produkts. Er hat gesponnen, und das Produkt ist ein Gespinnst.

↑ Marx overlooks here that the result of the production process is not only the intended product but also necessarily waste products.

Since the product is the objectification of the labor process, it makes sense to look at everything that was said so far about the labor process also from the point of view of the product.

↓ After his earlier classification of the material ingredients needed by labor to produce its product, Marx takes now the product as given and looks back at the labor process which produced it:

191:1 If one views the whole process from the point of view of its result, the product, then both the instruments and the object of labor appear as means of production,⁶ and the labor itself as productive labor.⁷

196:1 Betrachtet man den ganzen Prozeß vom Standpunkt seines Resultats, des Produkts, so erscheinen beide, Arbeitsmittel und Arbeitsgegenstand, als Produktionsmittel⁶ und die Arbeit selbst als produktive Arbeit⁷.

↑ The difference between instruments and object of labor is only relevant in their relation to labor; in relation to the end product they are both means of production. ↓ The example in footnote 6 illustrates that this look backward at the labor process from its product is an unintuitive point of view, since we are used to looking at the labor process from the point of view of the laborer, not from that of the product:

⁶ It seems paradoxical to assert that uncaught fish, for instance, are a means of production in the fishing industry. But hitherto no one has discovered the art of catching fish in waters that contain none.

⁶ Es scheint paradox, z.B. den Fisch, der noch nicht gefangen ist, ein Produktionsmittel für den Fischfang zu nennen. Bisher ist aber noch nicht die Kunst erfunden, Fische in Gewässern zu fangen, in denen sie sich nicht vorfinden.

↑ Cohen [Coh80, p. 40] criticizes footnote 6: “Marx’s quip is misjudged. Not every necessary condition of a productive activity qualifies as a means of producing what that activity produces.” Cohen considers fishing not as a process of transforming living fish in the waters into edible fish in freezer pouches, but as the new creation of edible fish, one condition for which happens to be the prior existence of living fish in the water.

Note that Marx uses different words for the same real entity according to the context under which it is regarded: regarded as part of the labor process it is an object of labor, it is the thing on which the labor process operates, but regarded as a part of the production process it is a means of production. A similar double terminology will also be used for the value

composition/organic composition of capital, and others.

↓ Footnote 7 announces that the concept of “productive labor” will have a different meaning when capitalist production is considered.

⁷ This method of determining, from the standpoint of the labor-process alone, what is productive labor, is by no means directly applicable to the case of the capitalist process of production.

⁷ Diese Bestimmung produktiver Arbeit, wie sie sich vom Standpunkt des einfachen Arbeitsprozesses ergibt, reicht keineswegs hin für den kapitalistischen Produktionsprozeß.

↑ This remark will be the starting point for a further discussion of productive labor in chapter Sixteen, .

Question 763 *Is there labor which does not produce a product?* 2012fa.

[Products as Inputs into Production Processes]

↓ Products not only come out of labor process but also enter them.

191:2 Though a use-value, in the form of a product, issues from the labor-process, yet other use-values, products of previous labor, enter into it as means of production. The same-use-value is both the product of a previous process, and a means of production in a later process. Products are therefore not only results, but also conditions of labor.

196:2 Wenn ein Gebrauchswert als Produkt aus dem Arbeitsprozeß herauskommt, gehn andre Gebrauchswerte, Produkte früherer Arbeitsprozesse, als Produktionsmittel in ihn ein. Derselbe Gebrauchswert, der das Produkt dieser, bildet das Produktionsmittel jener Arbeit. Produkte sind daher nicht nur Resultat, sondern zugleich Bedingung des Arbeitsprozesses.

↑ Since Marx overlooked earlier that every production process not only produces products but at the same time also produces waste streams, it is not surprising that he overlooks here the important fact that not only the intended products but also the waste streams of one production process can be used as inputs into different production processes. The earth is not a closed system but it receives a steady flow of high-grade energy from the sun. Because of this it is possible to design systems of production processes which do not irreversibly degrade the environment but which clean each other up. Biological systems do this all the time, but the possibility and necessity to apply similar principles to production has not been recognized until very recently. In some of his writings, Marx seems aware of this, but here, in his general analysis of the production process, he overlooks it. If we read Marx today we must be aware of the things he overlooked so that we can apply his theory correctly to the present time.

↓ It is not only possible but the rule, with very few exceptions, that the means of production of a production process are already the products of a previous production process. Marx first shows this with respect to the object of labor:

191:3 With the exception of the extractive industries, in which the material for labor is provided immediately by Nature, such as mining, hunting, fishing, and agriculture (so far as the latter is confined to breaking up virgin soil), all branches of industry manipulate raw material, objects already filtered through labor, already products of labor. Such is seed in agriculture. Animals and plants, which we are accustomed

196:3 Mit Ausnahme der extraktiven Industrie, die ihren Arbeitsgegenstand von Natur vorfindet, wie Bergbau, Jagd, Fischfang usw. (der Ackerbau nur, soweit er in erster Instanz die jungfräuliche Erde selbst aufbricht), behandeln alle Industriezweige einen Gegenstand, der Rohmaterial, d.h. bereits durch die Arbeit filtrierter Arbeitsgegenstand, selbst schon Arbeitsprodukt ist. So z.B. der Samen in der Agrikultur. Tie-

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to consider as products of nature, are in their present form, not only products of, say last year's labor, but the result of a gradual transformation, continued through many generations, under man's superintendence, and by means of his labor.

re und Pflanzen, die man als Naturprodukte zu betrachten pflegt, sind nicht nur Produkte vielleicht der Arbeit vom vorigen Jahr, sondern, in ihren jetzigen Formen, Produkte einer durch viele Generationen unter menschlicher Kontrolle, vermittelt menschlicher Arbeit, fortgesetzten Umwandlung.

↑ This passage re-introduces the term "raw material," first defined in 188:2, for an object of labor which is itself the product of an earlier labor process. With some objects of labor (farm animals) it is not obvious that they are already the product of earlier production processes. ↓ But regarding the instruments of labor, it is usually very obvious that they are the products of earlier production processes:

But in the great majority of cases, instruments of labor show, even to the most superficial observer, traces of the labor of past ages.

Was aber die Arbeitsmittel insbesondere betrifft, so zeigt ihre ungeheure Mehrzahl dem oberflächlichsten Blick die Spur vergangener Arbeit.

↑ This recursivity of the production process is an important aspect of the production process: it turns it into an inherently social process. Even labor itself needs skills which are developed and transmitted over many generations.

[For the Labor Process, it is Irrelevant Whether a Material Input is a Product]

The next four paragraphs say more about raw materials, i.e., about products entering the labor process.

↓ (1) According to the double role of *nature* in the labor process, which acts on the one hand as the object of labor and on the other as the instrument of labor, there are two kinds of raw material—principal substance and accessory.

191:4/o Raw material may either form the principal substance of a product, or it may only enter into its formation as an accessory. An accessory may be consumed by the instruments of labor, as coal under a boiler, oil by a wheel, hay by draft-horses, or it may be mixed with the raw material in order to produce some modification thereof, as chlorine into unbleached linen, coal with iron, dye-stuff with wool, or again, it may help to carry on the work itself, as in the case of the materials used for heating and lighting workshops. The distinction between principal substance and accessory vanishes in the true chemical industries, where none of the raw material re-appears, in its original composition, as the substance of the product.⁸

196:4 Das Rohmaterial kann die Hauptsubstanz eines Produkts bilden oder nur als Hilfsstoff in seine Bildung eingehn. Der Hilfsstoff wird vom Arbeitsmittel konsumiert, wie Kohle von der Dampfmaschine, Öl vom Rade, Heu vom Zugpferd, oder dem Rohmaterial zugesetzt, um darin eine stoffliche Veränderung zu bewirken, wie Chlor zur ungebleichten Leinwand, Kohle zum Eisen, Farbe zur Wolle, oder er unterstützt die Verrichtung der Arbeit selbst, wie z.B. zur Beleuchtung und Heizung des Arbeitslokals verwandte Stoffe. Der Unterschied zwischen Hauptstoff und Hilfsstoff verschimmt in der eigentlich chemischen Fabrikation, weil keines der angewandten Rohmaterialien als die Substanz des Produkts wieder erscheint.⁸

⁸ Storch calls the raw materials properly speaking "matières," and accessory material

⁸ Storch unterscheidet das eigentliche Rohmaterial als „matière“ von den Hilfsstoffen als

“matériaux.” Cherbuliez describes accessories as “matières instrumentales.”

„matériaux“; Cherbuliez bezeichnet die Hilfsstoffe als „matières instrumentales“.

Marx himself uses the word “matières instrumentales” in his manuscripts: materials which act as instruments.

Question 764 *What is the difference between raw materials properly speaking and accessories?* 2013fa.

↓ (2) Since the same use-value can be used in many different ways, the same product can be means of production in different production processes. It often even enters its own production.

192:1 Every object possesses various properties, and is thus capable of being applied to different uses. One and the same product may therefore serve as raw material in very different labor processes. Corn, for example, is a raw material for millers, starch-manufacturers, distillers, and cattle-breeders. It also enters as raw material into its own production in the shape of seed. Coal, too, is at the same time the product of, and a means of production in, coal-mining.

197:1 Da jedes Ding vielerlei Eigenschaften besitzt und daher verschiedener Nutzanwendung fähig ist, kann dasselbe Produkt das Rohmaterial sehr verschiedener Arbeitsprozesse bilden. Korn z.B. ist Rohmaterial für Müller, Stärkefabrikant, Destillateur, Viehzüchter usw. Es wird Rohmaterial seiner eignen Produktion als Samen. So geht die Kohle als Produkt aus der Minenindustrie hervor und als Produktionsmittel in sie ein.

(3) It is also possible that the same product enters one process as raw material and a different process, or even the same process, as instrument of labor:

192:2 Again, a particular product may be used in one and the same process, both as an instrument of labor and as raw material. Take, for instance, the fattening of cattle, where the animal is the raw material, and at the same time an instrument for the production of manure.

197:2 Dasselbe Produkt mag in demselben Arbeitsprozeß als Arbeitsmittel und Rohmaterial dienen. Bei der Viehmast z.B., wo das Vieh, das bearbeitete Rohmaterial, zugleich Mittel der Düngerbereitung ist.

(4) In a few cases, products ready for consumption can also be raw materials in the production of other products. But most raw materials cannot be used for final consumption or as means of labor.

192:3 A product, though ready for immediate consumption, may yet serve as raw material for a further product, as grapes when they become the raw material for wine. On the other hand, labor may give us its product in such a form, that we can use it only as raw material, as is the case with cotton, thread, and yarn. Raw material in this state is called semi-finished product, a better name would be step-product, such as for instance cotton, thread, yarn etc. Such a raw material, though itself a product, may have to go through a whole series of different processes: in each of these in turn, it

197:3 Ein Produkt, das in einer für die Konsumtion fertigen Form existiert, kann von neuem zum Rohmaterial eines andren Produkts werden, wie die Traube zum Rohmaterial des Weins. Oder die Arbeit entläßt ihr Produkt in Formen, worin es nur wieder als Rohmaterial brauchbar ist. Rohmaterial in diesem Zustand heißt Halbfabrikat und hieße besser Stufenfabrikat, wie z.B. Baumwolle, Faden, Garn usw. Obgleich selbst schon Produkt, mag das ursprüngliche Rohmaterial eine ganze Staffel verschiedener Prozesse zu durchlaufen haben, worin es in stets veränderter Gestalt stets von neuem als

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serves, with constantly varying form, as raw material, until the last process of the series leaves it a perfect product, ready for individual consumption, or for use as an instrument of labor.

Rohmaterial funktioniert bis zum letzten Arbeitsprozeß, der es als fertiges Lebensmittel oder fertiges Arbeitsmittel von sich abstößt.

Question 765 *Does it depend on the use-value of a product if it is used as instrument of labor or as object of labor, or for final consumption? 2011fa.*

Question 766 *Give examples for each of the following situations:*

- (a) *a use-value is object of labor in its own production process,*
- (b) *a use-value is both instrument of labor and object of labor in the same production process*
- (c) *a finished product ready for individual consumption is the object of labor in the production of a different product.*

192:4 Hence we see, that whether a use-value is to be regarded as raw material, as instrument of labor, or as product, this is determined entirely by its function in the labor-process, by the position it there occupies: as this position varies, so do these determinations.

197:4 Man sieht: Ob ein Gebrauchswert als Rohmaterial, Arbeitsmittel oder Produkt erscheint, hängt ganz und gar ab von seiner bestimmten Funktion im Arbeitsprozeß, von der Stelle, die er in ihm einnimmt, und mit dem Wechsel dieser Stelle wechseln jene Bestimmungen.

Conclusion: A product entering a labor process acts in this process as object or instrument of labor, not as a product. (If it reminds us of its character as a product, then only through its imperfections). This legitimizes Marx's order of presentation, which discussed the labor process first without paying much attention to the fact that instruments and object of labor are already products.

192:5/o Whenever therefore a product enters as a means of production into a new labor-process, it thereby loses its product character, and becomes a mere factor in the process. A spinner treats spindles only as implements for spinning, and flax only as the material that he spins. Of course it is impossible to spin without material and spindles; and therefore the existence of these things as products, at the commencement of the spinning operation, must be presumed: but in the process itself, the fact that they are products of previous labor, is a matter of utter indifference; just as in the digestive process, it is of no importance whatever, that bread is the produce of the previous labor of the farmer, the miller, and the baker.

197:5 Durch ihren Eintritt als Produktionsmittel in neue Arbeitsprozesse verlieren Produkte daher den Charakter des Produkts. Sie funktionieren nur noch als gegenständliche Faktoren der lebendigen Arbeit. Der Spinner behandelt die Spindel nur als Mittel, womit, den Flachs nur als Gegenstand, den er spinnt. Allerdings kann man nicht spinnen ohne Spinnmaterial und Spindel. Das Vorhandensein dieser Produkte ist daher vorausgesetzt beim Beginn des Spinnens. In diesem Prozeß selbst aber ist es ebenso gleichgültig, daß Flachs und Spindel Produkte vergangner Arbeit sind, wie es im Akt der Ernährung gleichgültig ist, daß Brot das Produkt der vergangenen Arbeiten von Bauer, Müller, Bäcker usw.

↑ It is the product itself, not the past labor process producing the product, which matters for the consumption of the product, whether it be final consumption or productive consumption. ↓ Only the flaws in the product remind of the producer.

On the contrary, it is generally by their imperfections as products, that the means of production in any process assert themselves in their character of products. A blunt knife or weak thread forcibly remind us of Mr. A, the cutler, or Mr. B, the spinner. In the finished product, the labor by means of which it has acquired its useful qualities is extinguished.

Umgekehrt. Machen Produktionsmittel im Arbeitsprozeß ihren Charakter als Produkte vergangner Arbeit geltend, so durch ihre Mängel. Ein Messer, das nicht schneidet, Garn, das beständig zerreißt usw., erinnern lebhaft an Messerschmied A und Garnwischer E. Im gelungenen Produkt ist die Vermittlung seiner Gebrauchseigenschaften durch vergangne Arbeit ausgelöscht.

Question 767 Explain Marx's sentence: "Whenever a product enters as a means of production into a new labor-process, it thereby loses its product character, and becomes a mere factor in the process." 2011fa.

[Productive Consumption]

It is common understanding that the labor process produces its products and consumes its inputs. However this consumption is also a preservation. Many use-values are such that they would spoil if they did not enter a production process. Productive consumption vs. individual consumption.

193:1 A machine which does not serve the purposes of labor, is useless. In addition, it falls prey to the destructive influence of natural forces. Iron rusts and wood rots. Yarn with which we neither weave nor knit, is cotton wasted. Living labor must seize upon these things and rouse them from their death-sleep, change them from mere possible use-values into actual and effective ones. Bathed in the fire of labor, appropriated as part and parcel of labor's organism, and, as it were, made alive for the performance of their functions in the process, they are consumed but consumed with a purpose, as constitutive elements of new use-values, of new products, ever ready as means of subsistence for individual consumption, or as means of production for some new labor-process.

198:1 Eine Maschine, die nicht im Arbeitsprozeß dient, ist nutzlos. Außerdem verfällt sie der zerstörenden Gewalt des natürlichen Stoffwechsels. Das Eisen verrostet, das Holz verfault. Garn, das nicht verwebt oder verstrickt wird, ist verdorbene Baumwolle. Die lebendige Arbeit muß diese Dinge ergreifen, sie von den Toten erwecken, sie aus nur möglichen in wirkliche und wirkende Gebrauchswerte verwandeln. Vom Feuer der Arbeit beleckt, als Leiber derselben angeeignet, zu ihren begriffs- und berufsmäßigen Funktionen im Prozeß begeistert, werden sie zwar auch verzehrt, aber zweckvoll, als Bildungselemente neuer Gebrauchswerte, neuer Produkte, die fähig sind, als Lebensmittel in die individuelle Konsumtion oder als Produktionsmittel in neuen Arbeitsprozeß einzugehn.

193:2 If then, on the one hand, finished products are not only results, but also necessary conditions, of the labor-process, on the other hand, their assumption into that process, their contact with living labor, is the sole means by which they can be made to retain their character of use-values, and be utilised.

198:2 Wenn also vorhandne Produkte nicht nur Resultate, sondern auch Existenzbedingungen des Arbeitsprozesses sind, ist andererseits ihr Hineinwerfen in ihn, also ihr Kontakt mit lebendiger Arbeit, das einzige Mittel, um diese Produkte vergangner Arbeit als Gebrauchswerte zu erhalten und zu verwirklichen.

Here it becomes apparent how right Marx was when he wrote, in 46:1, that objects realize their use-values in consumption. Without this consumption these use-values would vanish.

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193:3 Labor uses up its material factors, its object and its instruments, consumes them, and is therefore a process of consumption. Such productive consumption is distinguished from individual consumption by this, that the latter uses up products, as means of subsistence for the living individual; the former, as means whereby alone, labor, the labor-power of the living individual, is enabled to act. The product, therefore, of individual consumption, is the consumer himself; the result of productive consumption, is a product distinct from the consumer.

198:3 Die Arbeit verbraucht ihre stofflichen Elemente, ihren Gegenstand und ihr Mittel, verspeist dieselben und ist also Konsumtionsprozeß. Diese produktive Konsumtion unterscheidet sich dadurch von der individuellen Konsumtion, daß letztere die Produkte als Lebensmittel des lebendigen Individuums, erstere sie als Lebensmittel der Arbeit, seiner sich betätigenden Arbeitskraft, verzehrt. Das Produkt der individuellen Konsumtion ist daher der Konsument selbst, das Resultat der produktiven Konsumtion ein vom Konsumenten unterschiedenes Produkt.

[Summary]

Bringing everything together one arrives at a characterization of the labor process as a process which uses products to produce products.

193:4/o In so far then, as its instruments and objects are themselves products, labor consumes products in order to create products, or in other words, consumes one set of products by turning them into means of production for another set.

198:4 Sofern ihr Mittel und ihr Gegenstand selbst schon Produkte sind, verzehrt die Arbeit Produkte, um Produkte zu schaffen, oder vernutzt Produkte als Produktionsmittel von Produkten.

↑ This characterization of the labor process is quite different from, one might even say the opposite of, its initial characterization given in 187:2/o, that it is a process between humans and nature in which humans mediate their metabolism with nature through their own conscious actions. ↓ Echoes of this initial characterization can be found (1) in history, since originally, the objective factors of the labor process were given by nature, and (2) even today in the extractive industries, in which the object of labor is still given by nature.

But, just as in the beginning, the only participators in the labor-process were man and the earth, which latter exists independently of man, so even now we still employ in the process many means of production, provided directly by Nature, that do not represent any combination of natural substances with human labor.

Wie der Arbeitsprozeß aber ursprünglich nur zwischen dem Menschen und der ohne sein Zutun vorhandenen Erde vorgeht, dienen in ihm immer noch auch solche Produktionsmittel, die von Natur vorhanden, keine Verbindung von Naturstoff und menschlicher Arbeit darstellen.

7.1.c. [The Capitalist's Role in the Production of Use-Values]

194:1 The labor-process, resolved as above into its simple elementary factors, is human action with a view to the production of use-values, appropriation of natural substances to human requirements; it is the necessary condition for effecting exchange

198:5/o Der Arbeitsprozeß, wie wir ihn in seinen einfachen und abstrakten Momenten dargestellt haben, ist zweckmäßige Tätigkeit zur Herstellung von Gebrauchswerten, Aneignung des Natürlichen für menschliche Bedürfnisse, allgemeine Bedingung des

of matter between man and Nature; it is the everlasting Nature-imposed condition of human existence, and therefore is independent of every social phase of that existence, or rather, is common to every such phase.

Labor is always necessary, regardless of the social relations. The general structure of the labor process, as just described, does not depend on society. ↓ This is why Marx hasn't said so far that every labor process is social:

It was, therefore, not necessary to represent our laborer in connexion with other laborers; man and his labor on one side, Nature and its materials on the other, sufficed.

The next passage is similar to 270:1:

As the taste of the porridge does not tell you who grew the oats, no more does this simple process tell you of itself what are the social conditions under which it is taking place, whether under the slave-owner's brutal lash, or the anxious eye of the capitalist, whether Cincinnatus carries it on in tilling his modest farm or a savage in killing wild animals with stones.⁹

⁹ By a wonderful feat of logical acumen, Colonel Torrens has discovered, in this stone of the savage the origin of capital. "In the first stone which he [the savage] flings at the wild animal he pursues, in the first stick that he seizes to strike down the fruit which hangs above his reach, we see the appropriation of one article for the purpose of aiding in the acquisition of another, and thus discover the origin of capital." (R. Torrens: "An Essay on the Production of Wealth," etc., pp. 70–71.)

↓ Marx mocks Torrens by adding another explanation which is just as absurd. This joke uses the fact that the German word for "stick" is "stock," therefore it has to be formulated differently in English than in German:

^{9 ctd} Since the German word for "stick" is "stock," this "first stick" would undoubtedly also explain why "stock" is synonymous with "capital."

This whole paragraph concludes the discussion that started with 187:1, but it is also sets the stage for a new turn. Right after emphasizing that the social order is irrelevant for the basic determinations of the production process, Marx discusses the role of the capitalist in it. We are not yet in the section about the creation of value, therefore Marx is not yet discussing the capitalist's function as the representative of the creation of surplus-value. Right now he is looking at the capitalist's function as the director of the production of use-values.

The first task of the capitalist concerning the labor process from its use-value side is to buy the right kind of labor-power and means of production.

Stoffwechsels zwischen Mensch und Natur, ewige Naturbedingung des menschlichen Lebens und daher unabhängig von jeder Form dieses Lebens, vielmehr allen seinen Gesellschaftsformen gleich gemeinsam.

Wir hatten daher nicht nötig, den Arbeiter im Verhältnis zu andren Arbeitern darzustellen. Der Mensch und seine Arbeit auf der einen, die Natur und ihre Stoffe auf der andren Seite genügten.

So wenig man dem Weizen anschmeckt, wer ihn gebaut hat, so wenig sieht man diesem Prozeß an, unter welchen Bedingungen er vorgeht, ob unter der brutalen Peitsche des Sklavenaufsehers oder unter dem ängstlichen Auge des Kapitalisten, ob Cincinnatus ihn verrichtet in der Bestellung seiner paar jugera oder der Wilde, der mit einem Stein eine Bestie erlegt.⁹

⁹ Aus diesem höchst logischen Grund entdeckt wohl Oberst Torrens in dem Stein des Wilden—den Ursprung des Kapitals. „In dem ersten Stein, den der Wilde auf die Bestie wirft, die er verfolgt, in dem ersten Stock, den er ergreift, um die Frucht niederzuziehn, die er nicht mit den Händen fassen kann, sehn wir die Aneignung eines Artikels zum Zweck der Erwerbung eines andren und entdecken so—den Ursprung des Kapitals.“ (R. Torrens, „An Essay on the Production of Wealth etc.“, p. 70, 71.)

^{9 ctd} Aus jenem ersten Stock ist wahrscheinlich auch zu erklären, warum stock im Englischen synonym mit Kapital ist.

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194:2/o Let us now return to our would-be capitalist. We left him just after he had purchased, in the open market, all the necessary factors of the labor-process—its objective factors, the means of production, as well as its subjective factor, labor-power. With the cunning eye of an expert, he has selected the means of production and the kind of labor-power best adapted to his particular trade, be it spinning, bootmaking, or any other kind.

↑ This ties into the end of chapter Six, p. 185:1/o. The word “cunning” is a reference to Hegel’s “cunning of reason,” see footnote 2 to paragraph . ↓ The capitalist is “cunning” because he uses the general nature of the labor-process for his own goals:

He then proceeds to consume the commodity, the labor-power that he has just bought, by causing the laborer, the impersonation of that labor-power, to consume the means of production by his labor. The general character of the labor-process is evidently not changed by the fact, that the laborer works for the capitalist instead of for himself.

↑ The capitalist social context of the production process does not alter the *general* nature of the labor process. ↓ At the beginning, the entry of the capitalist into the production process also does *not yet* change its *specific* mode, since the early capitalists simply took the labor as it had evolved from the previous modes of production.

But also the particular methods and operations employed in bootmaking or spinning are not immediately changed by the intervention of the capitalist. He must begin by taking the labor-power as he finds it in the market, and consequently be satisfied with labor of such a kind as would be found in the period immediately preceding the rise of capitalists.

We are discussing at this point how the capitalist is taking advantage of the general nature of the labor-process. ↓ The question how this capitalist framework acts back on the labor-process and changes its specific nature can only be discussed after we know what this framework is.

The transmutation of the methods of production by the subordination of labor to capital, can take place only at a later period, and therefore will have to be treated of in a later chapter.

↓ Even without a change in the labor process itself, the capitalist framework has the following two implications:

199:1 Kehren wir zu unsrem Kapitalisten in spe zurück. Wir verließen ihn, nachdem er auf dem Warenmarkt alle zu einem Arbeitsprozeß notwendigen Faktoren gekauft hatte, die gegenständlichen Faktoren oder die Produktionsmittel, den persönlichen Faktor oder die Arbeitskraft. Er hat mit schlauem Kennerblick die für sein besonderes Geschäft, Spinnerei, Stiefelfabrikation usw., passenden Produktionsmittel und Arbeitskräfte ausgewählt.

Unser Kapitalist setzt sich also daran, die von ihm gekaufte Ware, die Arbeitskraft, zu konsumieren, d.h., er läßt den Träger der Arbeitskraft, den Arbeiter, die Produktionsmittel durch seine Arbeit konsumieren. Die allgemeine Natur des Arbeitsprozesses ändert sich natürlich nicht dadurch, daß der Arbeiter ihn für den Kapitalisten, statt für sich selbst verrichtet.

Aber auch die bestimmte Art und Weise, wie man Stiefel macht oder Garn spinnt, kann sich zunächst nicht ändern durch die Dazwischenkunft des Kapitalisten. Er muß die Arbeitskraft zunächst nehmen, wie er sie auf dem Markt vorfindet, also auch ihre Arbeit, wie sie in einer Periode entsprang, wo es noch keine Kapitalisten gab.

Die Verwandlung der Produktionsweise selbst durch die Unterordnung der Arbeit unter das Kapital kann sich erst später ereignen und ist daher erst später zu betrachten.

195:1a The labor-process, turned into the process by which the capitalist consumes labor-power, exhibits two characteristic phenomena.

↓ Not the laborer, but the capitalist has command and control over the labor process. (We are so familiar with this that it is no longer easy for us to appreciate how absurd and contradictory this situation is.)

195:1b First, the laborer works under the control of the capitalist to whom his labor belongs; the capitalist taking good care that the work is done in a proper manner, and that the means of production are used with intelligence, so that there is no unnecessary waste of raw material, and no wear and tear of the implements beyond what is necessarily caused by the work.

↓ From the point of view of the capitalist, the labor process is the consumption of the commodity labor-power which he bought.

195:2 Secondly, the product is the property of the capitalist and not that of the laborer, its immediate producer. Suppose that a capitalist pays for a day's labor-power at its value; then the right to use that power for a day belongs to him, just as much as the right to use any other commodity, such as a horse that he has hired for the day. To the purchaser of a commodity belongs its use, and the seller of labor-power, by giving his labor, does no more, in reality, than part with the use-value that he has sold. From the instant he steps into the workshop, the use-value of his labor-power, and therefore also its use, which is labor, belongs to the capitalist.

↓ The capitalist also owns the means of production:

By the purchase of labor-power, the capitalist incorporates labor, as a living ferment, with the lifeless constituents of the product, which belong to him as well. From his point of view, the labor-process is nothing more than the consumption of the commodity purchased, *i.e.*, of labor-power; but this consumption cannot be effected except by supplying the labor-power with the means of production. The labor-process is a process between things that the capitalist has purchased, things that have become his prop-

199:2 Der Arbeitsprozeß, wie er als Konsumtionsprozeß der Arbeitskraft durch den Kapitalisten vorgeht, zeigt nun zwei eigentümliche Phänomene.

199:3/o Der Arbeiter arbeitet unter der Kontrolle des Kapitalisten, dem seine Arbeit gehört. Der Kapitalist paßt auf, daß die Arbeit ordentlich vonstatten geht und die Produktionsmittel zweckmäßig verwandt werden, also kein Rohmaterial vergeudet und das Arbeitsinstrument geschont, d.h. nur so weit zerstört wird, als sein Gebrauch in der Arbeit ernötigt.

200:1 Zweitens aber: Das Produkt ist Eigentum des Kapitalisten, nicht des unmittelbaren Produzenten, des Arbeiters. Der Kapitalist zahlt z.B. den Tageswert der Arbeitskraft. Ihr Gebrauch, wie der jeder andren Ware, z.B. eines Pferdes, das er für einen Tag gemietet, gehört ihm also für den Tag. Dem Käufer der Ware gehört der Gebrauch der Ware, und der Besitzer der Arbeitskraft gibt in der Tat nur den von ihm verkauften Gebrauchswert, indem er seine Arbeit gibt. Von dem Augenblicke, wo er in die Werkstätte des Kapitalisten trat, gehörte der Gebrauchswert seiner Arbeitskraft, also ihr Gebrauch, die Arbeit, dem Kapitalisten.

Der Kapitalist hat durch den Kauf der Arbeitskraft die Arbeit selbst als lebendigen Gärungsstoff den toten ihm gleichfalls gehörigen Bildungselementen des Produkts einverleibt. Von seinem Standpunkt ist der Arbeitsprozeß nur die Konsumtion der von ihm gekauften Ware Arbeitskraft, die er jedoch nur konsumieren kann, indem er ihr Produktionsmittel zusetzt. Der Arbeitsprozeß ist ein Prozeß zwischen Dingen, die der Kapitalist gekauft hat, zwischen ihm gehörigen Dingen. Das Produkt dieses Prozesses

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erty. The product of this process belongs, therefore, to him, just as much as does the wine which is the product of a process of fermentation completed in his cellar.¹⁰

↓ Therefore the product belongs to the capitalist as well.

¹⁰ “Products are appropriated before they are converted into capital; this conversion does not secure them from such appropriation.” (Cherbuliez: “Richesse ou Pauvreté,” edit. Paris, 1841, p. 54.) “The Proletarian, by selling his labor for a definite quantity of the necessities of life, renounces all claim to a share in the product. The mode of appropriation of the products remains the same as before; it is in no way altered by the bargain we have mentioned. The product belongs exclusively to the capitalist, who supplied the raw material and the necessities of life; and this is a rigorous consequence of the law of appropriation, a law whose fundamental principle was the very opposite, namely, that every laborer has an exclusive right to the ownership of what he produces.” (I. c., p. 58.) “When the laborers receive wages for their labor ... the capitalist is then the owner not of the capital only” (he means the means of production) “but of the labor also. If what is paid as wages is included, as it commonly is, in the term capital, it is absurd to talk of labor separately from capital. The word capital as thus employed includes labor and capital both.” (James Mill: “Elements of Pol. Econ.,” etc., Ed. 1821, pp. 70, 71.)

gehört ihm daher ganz ebenso sehr als das Produkt des Gärungsprozesses in seinem Weinkeller.¹⁰

¹⁰ „Die Produkte sind appropriiert, bevor sie in Kapital verwandelt werden; diese Verwandlung entzieht sie nicht jener Appropriation.“ (Cherbuliez, „Richesse ou Pauvreté“, édit. Paris 1841, p. 54.) „Indem der Proletarier seine Arbeit gegen ein bestimmtes Quantum Lebensmittel (approvisionnement) verkauft, verzichtet er vollständig auf jeden Anteil am Produkt. Die Appropriation der Produkte bleibt dieselbe wie vorher; sie ist in keiner Weise durch die erwähnte Konvention verändert. Das Produkt gehört ausschließlich dem Kapitalisten, der die Rohstoffe und das Approvisionnement geliefert hat. Es ist dies eine strenge Konsequenz des Gesetzes der Appropriation, dessen Fundamentalprinzip umgekehrt das ausschließliche Eigentumsrecht jedes Arbeiters an seinem Produkte war.“ (ibid., p. 58.) James Mill, „Elements of Pol. Econ. etc.“, p. 70, 71: „Wenn die Arbeiter für Arbeitslohn arbeiten, ist der Kapitalist Eigentümer nicht nur des Kapitals“ (meint hier die Produktionsmittel), „sondern auch der Arbeit (of the labour also). Wenn man das, was für Arbeitslohn gezahlt wird, wie dies gebräuchlich, in den Begriff Kapital einschließt, ist es abgeschmackt, von der Arbeit getrennt vom Kapital zu sprechen. Das Wort Kapital in diesem Sinn schließt beides ein, Kapital und Arbeit.“

Question 768 In 291:2, Marx says: “The labor-process, turned into the process by which the capitalist consumes labor-power, exhibits two characteristic phenomena.” Which two phenomena?

7.2. Valorization Process

Marx begins his discussion of the valorization process not with the laborer engaged in the labor process, but with the capitalist—and not with the actions of the capitalist, but with his intentions what to do with the product he owns. He intends to earn a profit from the sale of the product. This intention puts the value aspect of the production process into the foreground.

196:1 The product appropriated by the capitalist is a use-value, such as yarn, for example, or boots. But, although boots are, in one sense, the basis of all social progress, and our capitalist is a decided “progressist,”

200:2/o Das Produkt—das Eigentum des Kapitalisten—ist ein Gebrauchswert, Garn, Stiefel usw. Aber obgleich Stiefel z.B. gewissermaßen die Basis des gesellschaftlichen Fortschritts bilden und unser Kapitalist

yet he does not manufacture boots for their own sake. Use-value is, by no means, the thing “which one loves for its own sake” in the production of commodities.

ein entschiedener Fortschrittsmann ist, fabriziert er die Stiefel nicht ihrer selbst wegen. Der Gebrauchswert ist überhaupt nicht das Ding qu'on aime pour lui-même in der Warenproduktion.

Although the product of the labor-process is a use-value, the purpose of the capitalist is not the use-value but the social relations attached to this use-value. (This is like going to the store and buying something not for the sake of the thing itself but for the packaging in which this thing comes.)

Use-values are only produced by capitalists, because, and in so far as, they are the material substratum, the carriers of exchange-value.

Gebrauchswerte werden hier überhaupt nur produziert, weil und sofern sie materielles Substrat, Träger des Tauscherts sind.

This needs to be made more precise because the capitalist has two goals:

Our capitalist has two objects in view: in the first place, he wants to produce a use-value that has a value in exchange, that is to say, an article destined to be sold, a commodity; and secondly, he desires to produce a commodity whose value shall be greater than the sum of the values of the commodities used in its production, that is, of the means of production and the labor-power, that he purchased with his good money in the open market. His aim is to produce not only a use-value, but a commodity also; not only use-value, but value; not only value, but at the same time surplus-value.

Und unsrem Kapitalisten handelt es sich um zweierlei. Erstens will er einen Gebrauchswert produzieren, der einen Tauschwert hat, einen zum Verkauf bestimmten Artikel, eine Ware. Und zweitens will er eine Ware produzieren, deren Wert höher als die Wertsomme der zu ihrer Produktion erheischten Waren, der Produktionsmittel und der Arbeitskraft, für die er sein gutes Geld auf dem Warenmarkt vorschöß. Er will nicht nur einen Gebrauchswert produzieren, sondern eine Ware, nicht nur Gebrauchswert, sondern Wert, und nicht nur Wert, sondern auch Mehrwert.

Question 770 In 293:1 Marx says that the capitalist has two goals, he wants to produce a commodity which he can sell, and a commodity which he can sell for a profit. Are these two goals in contradiction? 2013fa, 2011fa.

↑ It is the goal of the capitalist to make surplus-value. This is not only his goal but also his expectation, and we will see later on in this chapter that the capitalist becomes very angry if this expectation is not met. What is the basis for this so strongly held expectation?

Two different kinds of mechanisms are at work. In order to create surplus-value, the capitalist must first of all create value—and this is achieved by the simple fact that he produces commodities. Marx first says a word about this. Then Marx asks: what, in addition to selling commodities, must the capitalist do in order to gain surplus-value?

7.2.a. [Creation of Value]

As to the creation of value, this goal of the capitalist is satisfied simply because capitalist production is commodity production:

196:2 And indeed, since we are dealing with the production of commodities here, we obviously have only considered one as-

201:1 In der Tat, da es sich hier um Warenproduktion handelt, haben wir bisher offenbar nur eine Seite des Prozesses betrach-

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pect of the process so far. Just as commodities are at the same time use-values and values, so the process of producing them must be a labor-process, and at the same time, a process of creating value.^{10a}

Already in chapter One, Marx argued that the labor producing commodities has a double character, i.e., that the immaterial value substance is produced during the production process along with the use-value of the commodity. Now he looks at the implications of this general social fact under the present situation where the production process is a capitalist production process.

^{10a} As has been stated in a previous note, the English language has two different expressions for these two different aspects of labor: in the Simple Labor-process, the process of producing Use-Values, it is *Work*; in the process of creation of Value, it is *Labor*, taking the term in its strictly economic sense.—F. E.

tet. Wie die Ware selbst Einheit von Gebrauchswert und Wert, muß ihr Produktionsprozeß Einheit von Arbeitsprozeß und Wertbildungsprozeß sein.

[No footnote in the German edition]

Question 771 How does the double character of labor discussed in chapter One, section 1.2, differ from the double character of the production process discussed in chapter Seven?

196:3 Let us now examine production as a creation of value.

Since this two-edged character of the labor-process has already been discussed in chapter One, section 1.2, Marx emphasizes only those aspects which are especially relevant for the question at hand. The things he says here about the value transfer of the means of production will be elaborated more systematically in the next chapter.

196:4/oa We know that the value of each commodity is determined by the amount of labor materialised in it, by the working time necessary, under given social conditions, for its production. This rule also holds good for the product that accrued to our capitalist, as the result of the labor-process carried on for him. Our first step is to calculate the quantity of labor objectified in it.

He looks at the process quantitatively only, and he looks in detail at the role of the means of production.

197:0b Let us assume this product is 10 lbs. of yarn.

The labor-time in the product consists of two parts: the labor materialized in the means of production, and the new labor. First Marx looks at the labor materialized in the means of production.

197:1 For spinning the yarn, raw material is required; suppose in this case 10 lbs. of cotton. There is no need to investigate the value of this cotton, for our capitalist has, we will assume, bought it at its full value, say of \$2.40. In this price the labor required

201:2 Betrachten wir den Produktionsprozeß nun auch als Wertbildungsprozeß.

201:3 Wir wissen, daß der Wert jeder Ware bestimmt ist durch das Quantum der in ihrem Gebrauchswert materialisierten Arbeit, durch die zu ihrer Produktion gesellschaftlich notwendige Arbeitszeit. Dies gilt auch für das Produkt, das sich unsrem Kapitalisten als Resultat des Arbeitsprozesses ergab. Es ist also zunächst die in diesem Produkt vergegenständlichte Arbeit zu berechnen.

201:4 Es sei z.B. Garn.

201:5 Zur Herstellung des Garns war zuerst sein Rohmaterial nötig, z.B. 10 Pfund Baumwolle. Was der Wert der Baumwolle, ist nicht erst zu untersuchen, denn der Kapitalist hat sie auf dem Markt zu ihrem Wert, z.B. zu 10 sh. gekauft. In dem Preise der

for the production of the cotton is already expressed in terms of the average labor of society.

Now the instruments of labor:

We will further assume that the wear and tear of the spindle, which, for our present purpose, may represent all other instruments of labor employed, amounts to the value of 48 cents. If, then, twenty-four hours' labor, or two working-days, are required to produce the quantity of gold represented by \$2.88, we have here, to begin with, two days' labor already incorporated in the yarn.

↑ These two labor-days only represent the value transferred by the spinning labor from the instruments and materials, not yet the value newly created by the spinning labor. ↓ Next Marx justifies why the value of the materials is indeed transferred in the production process. Compare also the discussion of this issue in the next chapter, from p. 216:1/o onward.

(1) His first argument does not yet give a concrete explanation, but it addresses an objection. One should not be disturbed that value goes from one use-value to the other, because in the exchange, value also migrates from one use-value to another.

197:2 We must not let ourselves be misled by the circumstance that the cotton has taken a new shape while the substance of the spindle has to a certain extent been used up.

↑ If value is immanent in the commodity, the question arises: how can the value of the spindle be preserved if the spindle itself is used up? ↓ Marx argues that spinning is not an activity which destroys the value of the things it uses:

By the general law of value, if the value of 40 lbs. of yarn = the value of 40 lbs. of cotton + the value of a whole spindle, *i.e.*, if the same working time is required to produce the commodities on either side of this equation, then 10 lbs. of yarn are an equivalent for 10 lbs. of cotton, together with one-fourth of a spindle. In the case we are considering the same working time is materialised in the 10 lbs. of yarn on the one hand, and in the 10 lbs. of cotton and the fraction of a spindle on the other. Therefore it makes no difference to the value whether it appears in cotton, in a spindle, or in yarn. If spindle and cotton, instead of resting quietly side by side, join together in the spinning process, which alters their forms and turns them into yarn, their value is no more affected by this than it would be if they had been simply exchanged for their equivalent in yarn.

Baumwolle ist die zu ihrer Produktion erheischte Arbeit schon als allgemein gesellschaftliche Arbeit dargestellt.

Wir wollen ferner annehmen, daß die in der Verarbeitung der Baumwolle verzehrte Spindelmasse, die uns alle andren aufgewandten Arbeitsmittel repräsentiert, einen Wert von 2 sh. besitzt. Ist eine Goldmasse von 12 sh. das Produkt von 24 Arbeitsstunden oder zwei Arbeitstagen, so folgt zunächst, daß im Garn zwei Arbeitstage vergegenständlicht sind.

202:1 Der Umstand, daß die Baumwolle ihre Form verändert hat und die aufgezehrte Spindelmasse ganz verschwunden ist, darf nicht beirren.

Nach dem allgemeinen Wertgesetz sind z.B. 10 Pfund Garn ein Äquivalent für 10 Pfund Baumwolle und 1/4 Spindel, wenn der Wert von 40 Pfund Garn = dem Wert von 40 Pfund Baumwolle + dem Wert einer ganzen Spindel, d.h., wenn dieselbe Arbeitszeit erfordert ist, um beide Seiten dieser Gleichung zu produzieren. In diesem Fall stellt sich dieselbe Arbeitszeit das eine Mal in dem Gebrauchswert Garn, das andre Mal in den Gebrauchswerten Baumwolle und Spindel dar. Der Wert ist also gleichgültig dagegen, ob er in Garn, Spindel oder Baumwolle erscheint. Daß Spindel und Baumwolle, statt ruhig nebeneinander zu liegen, im Spinnprozesse eine Verbindung eingehn, welche ihre Gebrauchsformen verändert, sie in Garn verwandelt, berührt ihren Wert ebensowenig, als wenn sie durch einfachen Austausch gegen ein Äquivalent von Garn

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umgesetzt worden wären.

↓ (2) After having clarified that value can take different use-value forms, the value transfer from the means of production to the end product can be argued by comparison with one “vertically integrated” production process in which some kinds of labor are spent first and other kinds of labor afterwards:

197:3 The labor required for the production of the cotton, the raw material of the yarn, is part of the labor necessary to produce the yarn, and is therefore contained in the yarn. The same applies to the labor embodied in the spindle, without whose wear and tear the cotton could not be spun.¹¹

202:2 Die zur Produktion der Baumwolle erheischte Arbeitszeit ist Teil der zur Produktion des Garns, dessen Rohmaterial sie bildet, erheischten Arbeitszeit und deshalb im Garn enthalten. Ebenso verhält es sich mit der Arbeitszeit, die zur Produktion der Spindelmasse erheischt ist, ohne deren Verschleiß oder Konsum die Baumwolle nicht versponnen werden kann.¹¹

¹¹ Not only the labor applied immediately to commodities affects their value, but the labor also which is bestowed on the implements, tools, and buildings, with which such labor is assisted.

¹¹ „Nicht nur die auf Waren unmittelbar angewandte Arbeit beeinflusst ihren Wert, sondern auch die Arbeit, die auf Geräte, Werkzeuge und Gebäude verwendet worden ist, welche die unmittelbar verausgabte Arbeit unterstützen.“ (Ricardo, l.c. p. 16.)

Question 772 *In chapter Seven, Marx gives two different explanations why the value of the means of production is transferred in the production process. Summarize these two explanations. Which one is the right explanation?*

↓ Now Marx is ready to explain how the value of the means of production is transferred in the production process: production of means of production can just be considered an earlier phase of the same production process.

198:1 Hence, in determining the value of the yarn, or the labor-time required for its production, all the special processes carried on at various times and in different places, which were necessary, first to produce the cotton and the wasted portion of the spindle, and then with the cotton and spindle to spin the yarn, may together be looked on as different and successive phases of one and the same process. The whole of the labor in the yarn is past labor; and it is a matter of no importance that the operations necessary for the production of its constituent elements were carried on at times which, referred to the present, are more remote than the final operation of spinning. If a definite quantity of labor, say thirty days, is requisite to build a house, the total amount of labor incorporated in it is not altered by the fact that the work of the last day is done twenty-

202:3/o Soweit also der Wert des Garns, die zu seiner Herstellung erheischte Arbeitszeit, in Betrachtung kommt, können die verschiednen besondren, der Zeit und dem Raum nach getrennten Arbeitsprozesse, die durchlaufen werden müssen, um die Baumwolle selbst und die vernutzte Spindelmasse zu produzieren, endlich aus Baumwolle und Spindel Garn zu machen, als verschiedene aufeinander folgende Phasen eines und desselben Arbeitsprozesses betrachtet werden. Alle im Garn enthaltne Arbeit ist vergangne Arbeit. Daß die zur Produktion seiner Bildungselemente erheischte Arbeitszeit früher vergangen ist, im Plusquamperfektum steht, dagegen die zum Schlußprozeß, dem Spinnen, unmittelbar verwandte Arbeit dem Präsens näher, im Perfektum steht, ist ein durchaus gleichgültiger Umstand. Ist eine bestimmte Masse Arbeit, z.B. von 30

nine days later than that of the first. Therefore the labor contained in the raw material and the instruments of labor can be treated just as if it were labor expended in an earlier stage of the spinning process, before the labor of actual spinning commenced.

Arbeitstagen, zum Bau eines Hauses nötig, so ändert es nichts am Gesamtquantum der dem Hause einverleibten Arbeitszeit, daß der 30. Arbeitstag 29 Tage später in die Produktion einging als der erste Arbeitstag. Und so kann die im Arbeitsmaterial und Arbeitsmittel enthaltne Arbeitszeit ganz so betrachtet werden, als wäre sie nur in einem früheren Stadium des Spinnprozesses verausgabt worden, vor der zuletzt unter der Form des Spinnens zugesetzten Arbeit.

↓ After this justification Marx treats the value transfer as a fact.

198:2 The values of the means of production, *i.e.*, the cotton and the spindle, which values are expressed in the price of \$4.88, are therefore constituent parts of the value of the yarn, or, in other words, of the value of the product.

203:1 Die Werte der Produktionsmittel, der Baumwolle und der Spindel, ausgedrückt in dem Preise von 12 sh., bilden also Bestandteile des Garnwerts oder des Werts des Produkts.

So far it sounds as if the production of value was automatic. Since the yarn is a commodity bought on the market, it has already passed the test of the market, therefore its value is socially recognized. Does this mean the capitalist cannot do anything wrong? Marx gives now two conditions for this value transfer, which the capitalist must watch over: (1) product must be a use-value, and (2) production must be such that it uses no more than the socially necessary labor-time, *i.e.*, no waste of materials etc.

198:3 Two conditions must nevertheless be fulfilled. First, the cotton and spindle must concur in the production of a use-value; they must in the present case become yarn. Value is independent of the particular use-value by which it is borne, but it must be embodied in a use-value of some kind. Secondly, the time occupied in the labor of production must not exceed the time really necessary under the given social conditions of the case. Therefore, if no more than 1 lb. of cotton be requisite to spin 11 lbs. of yarn, care must be taken that no more than this weight of cotton is consumed in the production of 11 lbs. of yarn; and similarly with regard to the spindle. Though the capitalist have a hobby, and use a gold instead of a steel spindle, yet the only labor that counts for anything in the value of the yarn is that which would be required to produce a steel spindle, because no more is necessary under the given social conditions.

203:2 Nur sind zwei Bedingungen zu erfüllen. Einmal müssen Baumwolle und Spindel wirklich zur Produktion eines Gebrauchswerts gedient haben. Es muß in unsrem Fall Garn aus ihnen geworden sein. Welcher Gebrauchswert ihn trägt, ist dem Wert gleichgültig, aber ein Gebrauchswert muß ihn tragen. Zweitens ist vorausgesetzt, daß nur die unter den gegebenen gesellschaftlichen Produktionsbedingungen notwendige Arbeitszeit verwandt wurde. Wäre also nur 1 Pfund Baumwolle nötig, um 1 Pfund Garn zu spinnen, so darf nur 1 Pfund Baumwolle verzehrt sein in der Bildung von 1 Pfund Garn. Ebenso verhält es sich mit der Spindel. Hat der Kapitalist die Phantasie, goldne statt eiserner Spindeln anzuwenden, so zählt im Garnwert dennoch nur die gesellschaftlich notwendige Arbeit, d.h. die zur Produktion eiserner Spindeln notwendige Arbeitszeit.

We know now how much value was transferred to the yarn from spindles and cotton. Now Marx discusses the value newly added by spinning labor.

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198:4/o We now know what portion of the value of the yarn is owing to the cotton and the spindle. It amounts to \$4.88 or the materialization of two days of labor. The next point for our consideration is, what portion of the value of the yarn is added to the cotton by the labor of the spinner.

203:3 Wir wissen jetzt, welchen Teil des Garnwerts die Produktionsmittel, Baumwolle und Spindel, bilden. Er ist gleich 12 sh. oder die Materiatur von zwei Arbeitstagen. Es handelt sich also nun um den Wertteil, welchen die Arbeit des Spinners selbst der Baumwolle zusetzt.

The Moore-Aveling translation has “value of two days’ work;” which is an unfortunate formulation since

labor has no value. The above translation adopted Fowkes’s “materialization of two days of

labor.”

Labor must now be considered under a different angle than in the labor process.

199:1 We have now to consider this labor under a very different aspect from that which it had during the labor-process.

203:4/o Wir haben diese Arbeit jetzt von einem ganz andren Gesichtspunkte zu betrachten, als während des Arbeitsprozesses.

First Marx briefly recaps the labor process, in a passage very similar to 51:3.

There, we viewed it solely as that particular kind of human activity which changes cotton into yarn; there, the more the labor was suited to the work, the better the yarn, other circumstances remaining the same. The labor of the spinner was then viewed as specifically different from other kinds of productive labor, different on the one hand in its special aim, viz., spinning, different, on the other hand, in the special character of its operations, in the special nature of its means of production and in the special use-value of its product. For the operation of spinning, cotton and spindles are a necessity, but for making rifled cannon they would be of no use whatever.

Dort handelte es sich um die zweckmäßige Tätigkeit, Baumwolle in Garn zu verwandeln. Je zweckmäßiger die Arbeit, desto besser das Garn, alle andren Umstände als gleichbleibend vorausgesetzt. Die Arbeit des Spinners war spezifisch verschieden von andren produktiven Arbeiten, und die Verschiedenheit offenbarte sich subjektiv und objektiv, im besondren Zweck des Spinnens, seiner besondren Operationsweise, der besondren Natur seiner Produktionsmittel, dem besondren Gebrauchswert seines Produkts. Baumwolle und Spindel dienen als Lebensmittel der Spinnarbeit, aber man kann mit ihnen keine gezogenen Kanonen machen.

Although this last sentence seems a blatant truism, it is no longer true now that we are concerned with value-creating labor:

Here, on the contrary, where we consider the labor of the spinner only so far as it is value-creating, *i.e.*, a source of value, his labor differs in no respect from the labor of the man who bores cannon, or (what here more nearly concerns us), from the labor of the cotton-planter and spindle-maker incorporated in the means of production.

Sofern die Arbeit des Spinners dagegen wertbildend ist, d.h. Wertquelle, ist sie durchaus nicht verschieden von der Arbeit des Kanonenbohrers, oder, was uns hier näher liegt, von den in den Produktionsmitteln des Garns verwirklichten Arbeiten des Baumwollpflanzers und des Spindelmachers.

↓ Due to this homogeneity of labor, the different labors performed during the various stages of production of the finished product can be added together in order to form the value of this product.

It is solely by reason of this identity, that cotton planting, spindle making and spin-

Nur wegen dieser Identität können Baumwollpflanzen, Spindelmachen und Spinnen

ning, are capable of forming the component parts differing only quantitatively from each other, of one whole, namely, the value of the yarn. Here, we have nothing more to do with the quality, the nature and the specific character of the labor, but merely with its quantity.

bloß quantitativ verschiedene Teile desselben Gesamtwerts, des Garnwerts, bilden. Es handelt sich hier nicht mehr um die Qualität, die Beschaffenheit und den Inhalt der Arbeit, sondern nur noch um ihre Quantität.

In real life, this quantity would be a weighted sum. But for simplicity, Marx assumes here that all labor is simple labor, therefore a simple addition is sufficient.

This quantity is to be counted as that of simple labor. We assume that spinning is simple, unskilled labor, the average labor of the given society. Hereafter we shall see that the contrary assumption would not change the matter at hand.

Diese ist einfach zu zählen. Wir nehmen an, daß die Spinnarbeit einfache Arbeit, gesellschaftliche Durchschnittsarbeit ist. Man wird später sehen, daß die gegenteilige Annahme nichts an der Sache ändert.

↑ To recapitulate: Labor process: quality counts, qualitatively different from other labors. Process of valorization: qualitatively identical with other labors, only quantity counts. The properties of the process of the creation of value are therefore exactly the opposite of those of the labor process.

Differences between labor process and valorization process regarding their quantitative measure.

↓ Only labor-time counts:

199:2 While the laborer is at work, his labor constantly undergoes a transformation: from being motion, it becomes an object without motion; from being the laborer working, it becomes the thing produced. At the end of one hour's spinning, that act is represented by a definite quantity of yarn; in other words, a definite quantity of labor, namely that of one hour, has become embodied in the cotton.

204:1 Während des Arbeitsprozesses setzt sich die Arbeit beständig aus der Form der Unruhe in die des Seins, aus der Form der Bewegung in die der Gegenständlichkeit um. Am Ende einer Stunde ist die Spinnbewegung in einem gewissen Quantum Garn dargestellt, also ein bestimmtes Quantum Arbeit, eine Arbeitsstunde, in der Baumwolle vergegenständlicht.

Two things always happen: (1) Yarn is produced, and (2) labor-power is used up. If the yarn is a commodity, then also a third thing happens: (3) the labor-power used up in the production of the yarn is congealed in the yarn and forms its value.

We say labor, *i.e.*, the expenditure of his vital force by the spinner, and not spinning labor, because the special work of spinning counts here only so far as it is the expenditure of labor-power in general, and not in so far as it is the specific work of spinning.

Wir sagen Arbeitsstunde, d.h. die Verausgabung der Lebenskraft des Spinners während einer Stunde, denn die Spinnarbeit gilt hier nur, soweit sie Verausgabung von Arbeitskraft, nicht soweit sie die spezifische Arbeit des Spinnens ist.

↑ This "congelation" is not a physical but a social process. ↓ Its elusive social character is brought home by the fact that not the actual labor-time but the socially necessary labor-time counts in this congelation.

200:1 In the process we are now considering it is of extreme importance, that no more time be consumed in the work of transform-

204:2 Es ist nun entscheidend wichtig, daß während der Dauer des Prozesses, d.h. der Verwandlung von Baumwolle in Garn,

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ing the cotton into yarn than is necessary under the given social conditions. If under normal, *i.e.*, average social conditions of production, a pounds of cotton ought to be made into b pounds of yarn by one hour's labor, then a day's labor does not count as 12 hours' labor unless $12a$ pounds of cotton have been made into $12b$ pounds of yarn; for in the creation of value, the time that is socially necessary alone counts.

↓ Also means of labor and product appear now in a different light, in which their properties are turned into their opposites. Means of labor are absorbers of labor, and the product is only a measure for the absorbed labor.

200:2 Not only the labor, but also the raw material and the product now appear in quite a new light, very different from that in which we viewed them in the labor-process pure and simple. The raw material serves now merely as an absorbent of a definite quantity of labor. By this absorption it is in fact changed into yarn, because it is spun, because labor-power in the form of spinning is added to it; but the product, the yarn, is now nothing more than a measure of the labor absorbed by the cotton. If in one hour $1\frac{2}{3}$ lbs. of cotton can be spun into $1\frac{2}{3}$ lbs. of yarn, then 10 lbs. of yarn indicate the absorption of 6 hours' labor. Definite quantities of product, these quantities being determined by experience, now represent nothing but definite quantities of labor, definite masses of crystallised labor-time. They are nothing more than the materialisation of so many hours or so many days of social labor.

↓ The specific character of the product is irrelevant, and it is also irrelevant that the means of labor may already be products.

200:3 We are here no more concerned about the facts, that the labor is the specific work of spinning, that its object is cotton and its product yarn, than we are about the fact that the object itself is already a product and therefore raw material. If the spinner, instead of spinning, were working in a coal mine, the object of his labor, the coal, would be supplied by Nature; nevertheless, a definite quantity of extracted coal, a hun-

nur die gesellschaftlich notwendige Arbeitszeit verzehrt wird. Müssen unter normalen, d.h. durchschnittlichen gesellschaftlichen Produktionsbedingungen, a Pfund Baumwolle während einer Arbeitsstunde in b Pfund Garn verwandelt sein, so gilt nur der Arbeitstag als Arbeitstag von 12 Stunden, der $12 \times a$ Pfund Baumwolle in $12 \times b$ Pfund Garn verwandelt. Denn nur die gesellschaftlich notwendige Arbeitszeit zählt als wertbildend.

204:3 Wie die Arbeit selbst, so erscheint hier auch Rohmaterial und Produkt in einem ganz andren Licht als vom Standpunkt des eigentlichen Arbeitsprozesses. Das Rohmaterial gilt hier nur als Aufsauger eines bestimmten Quantums Arbeit. Durch diese Aufsaugung verwandelt es sich in der Tat in Garn, weil die Arbeitskraft in der Form der Spinnerei verausgabt und ihm zugesetzt wurde. Aber das Produkt, das Garn, ist jetzt nur noch Gradmesser der von der Baumwolle eingesaugten Arbeit. Wird in einer Stunde $1\frac{2}{3}$ Pfund Baumwolle versponnen oder in $1\frac{2}{3}$ Pfund Garn verwandelt, so zeigen 10 Pfund Garn 6 eingesaugte Arbeitsstunden an. Bestimmte und erfahrungsmäßig festgestellte Quanta Produkt stellen jetzt nichts dar als bestimmte Quanta Arbeit, bestimmte Masse festgeronnener Arbeitszeit. Sie sind nur noch Materiatur von einer Stunde, zwei Stunden, einem Tag gesellschaftlicher Arbeit.

204:4 Daß die Arbeit grade Spinnarbeit, ihr Material Baumwolle und ihr Produkt Garn, wird hier ebenso gleichgültig, als daß der Arbeitsgegenstand selbst schon Produkt, also Rohmaterial ist. Wäre der Arbeiter, statt in der Spinnerei, in der Kohlengrube beschäftigt, so wäre der Arbeitsgegenstand, die Kohle, von Natur vorhanden. Dennoch stellte ein bestimmtes Quantum aus dem Bett losgebrochener Kohle, z.B. ein Zent-

dredweight for example, would represent a definite quantity of absorbed labor.

ner, ein bestimmtes Quantum aufgesaugter Arbeit dar.

While concrete labors are very different from each other, and they need special attention because of all the unforeseen circumstances, the abstract value-creating labor is homogeneous. Whether the product is linen or coal, both represent abstract human labor.

7.2.b. [Creation of Surplus-Value]

After having discussed how value is created and how its quantity is measured, Marx looks now at the creation of surplus-value. For this he must compare the value created with the capitalist's costs. In his initial attempt, Marx considers the value product of 6 hours of labor, because the wages given to the laborer represent 6 labor hours. This assumption is fair to the worker—why should he or she work more than 6 hours if the pay is only an equivalent of 6 hours? However it turns out that the capitalist is not satisfied with this assumption, because no surplus-value is created. Let us follow this argument step by step:

200:4/o We assumed, on the occasion of its sale, that the value of a day's labor-power is 72 cents, and that six hours' labor is incorporated in that sum; and consequently that this amount of labor is requisite to produce the necessities of life daily required on an average by the laborer. If now our spinner by working for one hour, can convert 1 2/3 lbs. of cotton into 1 2/3 lbs. of yarn,¹² it follows that in six hours he will convert 10 lbs. of cotton into 10 lbs. of yarn. Hence, during the spinning process, the cotton absorbs six hours' labor. The same quantity of labor is also embodied in a piece of gold of the value of 72 cents. Consequently by the mere labor of spinning, a value of 72 cents is added to the cotton.

205:1 Beim Verkauf der Arbeitskraft ward unterstellt, daß ihr Tageswert = 3 sh., und in den letzten 6 Arbeitsstunden verkörpert sind, dies Arbeitsquantum also erheischt ist, um die Durchschnittssumme der täglichen Lebensmittel des Arbeiters zu produzieren. Verwandelt unser Spinner nun während einer Arbeitsstunde 1 2/3 Pfund Baumwolle in 1 2/3 Pfund Garn,¹² so in 6 Stunden 10 Pfund Baumwolle in 10 Pfund Garn. Während der Dauer des Spinnprozesses saugt die Baumwolle also 6 Arbeitsstunden ein. Dieselbe Arbeitszeit stellt sich in einem Goldquantum von 3 sh. dar. Der Baumwolle wird also durch das Spinnen selbst ein Wert von 3 sh. zugesetzt.

¹² These figures are quite arbitrary.

¹² Die Zahlen hier sind ganz willkürlich.

↑ Although the figures are arbitrary, the assumption which Marx makes here is very natural, as natural as the other assumptions made: namely, that the worker's wage represents an equivalent of the value he or she produces. ↓ In this situation, the transition from the labor process to the valorization process consists again, as before, in a simple re-interpretation of the same actual process; the value of the product equals the sum of the capitalists's outlays.

201:1 Let us now consider the total value of the product, the 10 lbs. of yarn. Two and a half days' labor has been embodied in it, of which two days were contained in the cotton and in the substance of the spindle worn away, and half a day was absorbed during the process of spinning. This two and a half days' labor is also represented by a piece of gold of the value of \$3.60. Hence, \$3.60 is

205:2 Sehn wir uns nun den Gesamtwert des Produkts, der 10 Pfund Garn, an. In ihnen sind 2 1/2 Arbeitstage vergegenständlicht, 2 Tage enthalten in Baumwolle und Spindelmasse, 1/2 Tag Arbeit eingesaugt während des Spinnprozesses. Dieselbe Arbeitszeit stellt sich in einer Goldmasse von 15 sh. dar. Der dem Wert der 10 Pfund Garn adäquate Preis beträgt also 15 sh., der Preis

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an adequate price for the 10 lbs. of yarn, or the price of one pound is 36 cents.

↓ But this result does not meet the capitalist's expectations.

201:2 Our capitalist stares in astonishment. The value of the product is exactly equal to the value of the capital advanced. The value so advanced has not expanded, no surplus-value has been created, and consequently money has not been converted into capital. The price of the yarn is fifteen shillings, and fifteen shillings were spent in the open market upon the constituent elements of the product, or, what amounts to the same thing, upon the factors of the labor-process; ten shillings were paid for the cotton, two shillings for the substance of the spindle worn away, and three shillings for the labor-power. The swollen value of the yarn is of no avail, for it is merely the sum of the values formerly existing in the cotton, the spindle, and the labor-power: out of such a simple addition of existing values, no surplus-value can possibly arise.¹³ These separate values are now all concentrated in one thing; but so they were also in the sum of fifteen shillings, before it was split up into three parts, by the purchase of the commodities.

↓ The capitalist's business is just as sterile as the physiocrats had argued manufacturing to be:

¹³ This is the fundamental proposition on which is based the doctrine of the Physiocrats as to the unproductiveness of all labor that is not agriculture: it is irrefutable for the orthodox economist. "Cette façon d'imputer à une seule chose la valeur de plusieurs autres" (par exemple au lin la consommation du tisserand), "d'appliquer, pour ainsi dire, couche sur couche, plusieurs valcurs sur une seule, fait que celle-ci grossit d'autant ... Le terme d'addition peint très-bien la manière dont se forme le prix des ouvrages de main d'oeuvre; ce prix n'est qu'un total de plusieurs valeurs consommées et additionnées ensemble; or, additionner n'est pas multiplier." ("Mercier de la Rivière," l.c., p. 599.)

↓ Why is the capitalist surprised at what seems to be a perfectly logical result?

201:3/o There is nothing strange in this result taken by itself. The value of one pound

eines Pfundes Garn 1 sh. 6 d.

205:3 Unser Kapitalist stutzt. Der Wert des Produkts ist gleich dem Wert des vorgeschossenen Kapitals. Der vorgeschossene Wert hat sich nicht verwertet, keinen Mehrwert erzeugt, Geld sich also nicht in Kapital verwandelt. Der Preis der 10 Pfund Garn ist 15 sh., und 15 sh. wurden verausgabt auf dem Warenmarkt für die Bildungselemente des Produkts oder, was dasselbe, die Faktoren des Arbeitsprozesses: 10 sh. für Baumwolle, 2 sh. für die verzehrte Spindelmasse und 3 sh. für Arbeitskraft. Der aufgeschwollne Wert des Garns hilft nichts, denn sein Wert ist nur die Summe der früher auf Baumwolle, Spindel und Arbeitskraft verteilten Werte, und aus einer solchen bloßen Addition vorhandner Werte kann nie und nimmermehr ein Mehrwert entspringen.¹³ Diese Werte sind jetzt alle auf ein Ding konzentriert, aber so waren sie in der Geldsumme von 15 sh., bevor diese sich durch drei Warenkäufe zersplitterte.

¹³ Dies ist der Fundamentalsatz, worauf die Lehre der Physiokraten von der Unproduktivität aller nicht agrikolen Arbeit beruht, und er ist unumstößlich für den Ökonomen—von Fach. „Diese Art, einem einzigen Gegenstand den Wert mehrerer anderer zuzurechnen“ (z.B. dem Flachs den Lebensunterhalt des Leinewebers), „also sozusagen verschiedene Werte schichtweise auf einen einzigen aufzuhäufen, bewirkt, daß dieser in gleichem Umfang anwächst ... Der Ausdruck Addition bezeichnet sehr gut die Art, wie der Preis der handwerklichen Erzeugnisse gebildet wird; dieser Preis ist nur die Gesamtsumme mehrerer verbrauchter und zusammengezählter Werte; addieren jedoch bedeutet nicht multiplizieren.“ (Mercier de la Rivière, l.c. p. 599.)

205:4/o An und für sich ist dies Resultat nicht befremdlich. Der Wert eines Pfund

of yarn being 36 cents, if our capitalist buys 10 lbs. of yarn in the market, he must pay \$3.60 for them. It is clear that, whether a man buys his house ready built, or gets it built for him, in neither case will the mode of acquisition increase the amount of money laid out on the house.

↓ The capitalist, who knows from experience that he makes profits, gropes for arguments that would explain why he should be making these profits:

202:1/o Our capitalist, who is at home in his vulgar economy, exclaims: “*Oh! but I advanced my money for the express purpose of making more money.*”

↑ If the capitalist says that it was his intention to make surplus-value, ↓ he will get a double answer: first of all, intent alone does not make things happen, and secondly, many capitalists also have the intention of making money *without* producing (two examples are given in footnote 14).

The way to Hell is paved with good intentions, and he might just as easily have intended to make money, without producing at all.¹⁴

¹⁴ Thus from 1844–47 he withdrew part of his capital from productive employment, in order to throw it away in railway speculations; and so also, during the American Civil War, he closed his factory, and turned his work-people into the streets, in order to gamble on the Liverpool cotton exchange.

He threatens all sorts of things. He won’t be caught napping again. In future he will buy the commodities in the market, instead of manufacturing them himself.

↑ His threat that he will quit producing and buy the finished product ↓ cannot be generalized:

But if all his brother capitalists were to do the same, where would he find his commodities in the market? And his money he cannot eat.

He advertises his virtue. “*Consider my abstinence; I might have played ducks and drakes with the \$3.60; but instead of that I consumed it productively, and made yarn with it.*”

↑ If he claims reward for his abstinence, since he used his capital outlays not for his own consumption, ↓ the answer is fourfold: (1) he does have the yarn now as reward for his capital outlays, (2) we have seen earlier the problems with miserly behavior, (3) where should the reward come from? There is not enough value in the end product to pay him such a reward. (4) He should therefore consider virtue its own reward.

Garn ist 1 sh. 6 d., und für 10 Pfund Garn müßte unser Kapitalist daher auf dem Warenmarkt 15 sh. zahlen. Ob er sein Privathaus fertig auf dem Markt kauft oder es selbst bauen läßt, keine dieser Operationen wird das im Erwerb des Hauses ausgelegte Geld vermehren.

206:1/o Der Kapitalist, der in der Vulgärökonomie Bescheid weiß, sagt vielleicht, er haben sein Geld mit der Absicht vorge-schossen, mehr Geld daraus zu machen.

Der Weg zur Hölle ist jedoch mit guten Absichten gepflastert, und er konnte ebensogut der Absicht sein, Geld zu machen, ohne zu produzieren.¹⁴

¹⁴ So z.B. entzog er 1844–1847 [einen] Teil seines Kapitals dem produktiven Geschäft, um es in Eisenbahnaktien zu verspekulieren. So, zur Zeit des amerikanischen Bürgerkriegs, schloß er die Fabrik und warf den Fabrikarbeiter aufs Pflaster, um auf der Liverpooler Baumwollbörse zu spielen.

Er droht. Man werde ihn nicht wieder ertappen. Künftig werde er die Ware fertig auf dem Markt kaufen, statt sie selbst zu fabrizieren.

Wenn aber alle seine Brüder Kapitalisten desgleichen tun, wo soll er Ware auf dem Markt finden? Und Geld kann er nicht essen.

Er katechisiert. Man soll seine Abstinenz bedenken. Er konnte seine 15 sh. verprassen. Statt dessen hat er sie produktiv konsumiert und Garn daraus gemacht.

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Very well, and by way of reward he is now in possession of good yarn instead of a bad conscience; and as for playing the part of a miser, it would never do for him to relapse into such bad ways as that; we have seen before to what results such asceticism leads. Besides, where nothing is, the king has lost his rights; whatever may be the merit of his abstinence, there is nothing wherewith specially to remunerate it, because the value of the product is merely the sum of the values of the commodities that were thrown into the process of production. Let him therefore console himself with the reflection that virtue is its own reward.

But no, he becomes importunate. He says: *"The yarn is of no use to me: I produced it for sale."*

↑ If he points to his altruism, having produced the yarn for others, ↓ the answer is that he therefore should sell it to those others, or maybe in the future only produce for himself (with a hint that his mode of production suffers from overproduction anyway).

In that case let him sell it, or, still better, let him for the future produce only things for satisfying his personal wants, a remedy that his physician MacCulloch has already prescribed as infallible against an epidemic of over-production.

He now gets obstinate. *"Can the laborer,"* he asks, *"merely with his arms and legs, produce commodities out of nothing? Did I not supply him with the materials, by means of which, and in which alone, his labor could be embodied? And as the greater part of society consists of such ne'er-do-wells, have I not rendered society incalculable service by my instruments of production, my cotton and my spindle, and not only society, but the laborer also, whom in addition I have provided with the necessities of life? And am I to be allowed nothing in return for all this service?"*

↑ If he enumerates how much he benefited the laborer, ↓ the answer is that the laborer benefited him just as much.

Well, but has not the laborer rendered him the equivalent service of changing his cotton and spindle into yarn? Moreover, there is here no question of service.¹⁵ A service

Aber dafür ist er ja im Besitz von Garn statt von Gewissensbissen. Er muß beileibe nicht in die Rolle des Schatzbildners zurückfallen, der uns zeigte, was bei der Asketik herauskommt. Außerdem, wo nichts ist, hat der Kaiser sein Recht verloren. Welches immer das Verdienst seiner Entsagung, es ist nichts da, um sie extra zu zahlen, da der Wert des Produkts, der aus dem Prozeß herauskommt, nur gleich der Summe der hineingeworfenen Warenwerte. Er beruhigt sich also dabei, daß Tugend Lohn.

Statt dessen wird er zudringlich. Das Garn ist ihm unnütz. Er hat es für den Verkauf produziert.

So verkaufe er es, oder, noch einfacher, produziere in Zukunft nur Dinge für seinen eignen Bedarf, ein Rezept, das ihm bereits sein Hausarzt MacCulloch als probates Mittel gegen die Epidemie der Überproduktion verschrieben hat.

Er stellt sich trutzig auf die Hinterbeine. Sollte der Arbeiter mit seinen eignen Gliedmaßen in der blauen Luft Arbeitsgebilde schaffen, Waren produzieren? Gab er ihm nicht den Stoff, womit und worin er allein seine Arbeit verleblichen kann? Da nun der größte Teil der Gesellschaft aus solchen Habenichtsen besteht, hat er nicht der Gesellschaft durch seine Produktionsmittel, seine Baumwolle und seine Spindel, einen unermeßlichen Dienst erwiesen, nicht dem Arbeiter selbst, den er obendrein noch mit Lebensmitteln versah? Und soll er den Dienst nicht berechnen?

Hat der Arbeiter ihm aber nicht den Gegen dienst erwiesen, Baumwolle und Spindel in Garn zu verwandeln? Außerdem handelt es sich hier nicht um Dienste.¹⁵ Ein Dienst ist

is nothing more than the useful effect of a use-value, be it of a commodity, or be it of labor.¹⁶ But here we are dealing with exchange-value. The capitalist paid to the laborer a value of 72 cents, and the laborer gave him back an exact equivalent in the value of 72 cents, added by him to the cotton: he gave him value for value.

¹⁵ “Extol thyself, put on finery and adorn thyself . . . but whoever takes more or better than he gives, that is usury, and is not service, but wrong done to his neighbour, as when one steals and robs. All is not service and benefit to a neighbour that is called service and benefit. For an adulteress and adulterer do one another great service and pleasure. A horseman does an incendiary a great service, by helping him to rob on the highway, and pillage land and houses. The papists do ours a great service, in that they don’t drown, burn, murder all of them, or let them all rot in prison; but let some live, and only drive them out, or take from them what they have. The devil himself does his servants inestimable service . . . To sum up, the world is full of great, excellent, and daily service and benefit.” (Martin Luther: “An die Pfarrherrn wider den Wucher zu predigen,” Wittenberg, 1540.)

¹⁶ In “Zur Kritik der Pol. Oek.,” p. 14, I make the following remark on this point—“It is not difficult to understand what ‘service’ the category ‘service’ must render to a class of economists like J. B. Say and F. Bastiat.”

Our friend, up to this time so purse-proud, suddenly assumes the modest demeanour of his own workman, and exclaims: “*Have I myself not worked? Have I not performed the labor of superintendence and of overlooking the spinner? And does not this labor, too, create value?*”

↑ If he says that he is a laborer himself, ↓ Marx subtly hints at it that he has hired managers and overlookers to do this work for him.

His overlooker and his manager try to hide their smiles.

↓ Suddenly the capitalist changes his script:

Meanwhile, after a hearty laugh, he re-assumes his usual mien. Though he chanted to us the whole creed of the economists, in

nichts als die nützliche Wirkung eines Gebrauchswerts, sei es der Ware, sei es der Arbeit.¹⁶ Hier aber gilt’s den Tauschwert. Er zahlte dem Arbeiter den Wert von 3 sh. Der Arbeiter gab ihm ein exaktes Äquivalent zurück in dem der Baumwolle zugesetzten Wert von 3 sh. Wert für Wert.

¹⁵ „Las du rühmen, schmücken und putzen . . . Wer aber mehr oder besseres nimpt“ (als er gibt), „das ist Wucher, und heisst, nicht Dienst, sondern Schaden gethan seinem Nehesten, als mit stelen und rauben geschieht. Es ist nicht alles Dienst und wolgethan dem Nehesten, was man heisst, Dienst und wolgethan. Denn eine Ehebrecherin und Ehebrecher thun einander grossen Dienst und wolgefallen. Ein Reuter thut einem Mordbrenner grossen reuterdienst, das er im hilfft auff der strassen rauben, Land und Leute bevehden. Die Papisten thun den unsern grossen Dienst, das sie nicht alle ertrenken, verbrennen, ermorden, im Gefengnis verfaulen lassen, sondern lassen doch etliche leben, und verjagen sie, oder nemen jnen was sie haben. Der Teuffel thut selber seinen Dienern grossen, unermesslichen Dienst . . . Summa, die Welt ist vol grosser, trefflicher teglicher Dienst und wohlthaten.“ (Martin Luther, „An die Pfarrherrn, wider den Wucher zu predigen etc.“, Wittenberg 1540.)

¹⁶ Ich bemerke darüber in „Zur Kritik der Pol. Oek.“, p. 14 u.a.: „Man begreift, welchen „Dienst“ die Kategorie „Dienst“ (service) einer Sorte Ökonomen wie J. B. Say und F. Bastiat leisten muß.“

Unser Freund, eben noch so kapitalübermütig, nimmt plötzlich die anspruchslose Haltung seines eignen Arbeiters an. Hat er nicht selbst gearbeitet? nicht die Arbeit der Überwachung, der Oberaufsicht über den Spinner verrichtet? Bildet diese seine Arbeit nicht auch Wert?

Sein eigner overlooker und sein Manager zucken die Achseln.

Unterdes hat er aber bereits mit heitrem Lächeln seine alte Physiognomie wieder angenommen. Er foppte uns mit der ganzen

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reality, he says, he would not give a brass farthing for it. He leaves this and all such like subterfuges and juggling tricks to the professors of Political Economy, who are paid for it. He himself is a practical man; and though he does not always consider what he says outside his business, yet in his business he knows what he is about.

↑ This is Marx's colorful way of saying that one should not listen to the excuses of the capitalists or their apologists, but one should examine more closely what the capitalists *do*.

203:1/o Let us examine the matter more closely.

↓ Since the value of the daily labor-power can be produced in six hours, we assumed that the workers work only six hours long. This assumption was not justified. The capitalist does not have to send the workers home after six hours. If he pays their means of subsistence for the day he has the right to make them work a normal working-day.

The value of a day's labor-power amounts to 72 cents, because on our assumption half a day's labor is embodied in that quantity of labor-power, *i.e.*, because the means of subsistence that are daily required for the production of labor-power, cost half a day's labor. But the past labor that is embodied in the labor-power, and the living labor that it can call into action; the daily cost of maintaining it, and its daily expenditure in work, are two totally different things. The former determines the exchange-value of the labor-power, the latter is its use-value. The fact that half a day's labor is necessary to keep the laborer alive during 24 hours, does not in any way prevent him from working a whole day. Therefore, the value of labor-power, and the value which that labor-power creates in the labor-process, are two entirely different magnitudes.

Not only is the value produced by labor-power during a normal working-day different from labor-power's own value, but the capitalist purchased labor-power exactly because of this difference.

This difference of the two values was what the capitalist had in view, when he was purchasing the labor-power. The useful qualities that labor-power possesses, and by virtue of which it makes yarn or boots, were to him nothing more than a *conditio sine qua non*; for in order to create value, labor must be expended in a useful manner.

Litanei. Er gibt keinen Deut darum. Er überläßt diese und ähnliche faule Ausflüchte und hohle Flausen den dafür eigens bezahlten Professoren der politischen Ökonomie. Er selbst ist ein praktischer Mann, der zwar nicht immer bedenkt, was er außerhalb des Geschäfts sagt, aber stets weiß, was er im Geschäft tut.

207:1/o Sehn wir näher zu.

Der Tageswert der Arbeitskraft betrug 3 sh., weil in ihr selbst ein halber Arbeitstag vergegenständlicht ist, d.h. weil die täglich zur Produktion der Arbeitskraft nötigen Lebensmittel einen halben Arbeitstag kosten. Aber die vergangne Arbeit, die in der Arbeitskraft steckt, und die lebendige Arbeit, die sie leisten kann, ihre täglichen Erhaltungskosten und ihre tägliche Verausgabung, sind zwei ganz verschiedene Größen. Die erstere bestimmt ihren Tauschwert, die andre bildet ihren Gebrauchswert. Daß ein halber Arbeitstag nötig, um ihn während 24 Stunden am Leben zu erhalten, hindert den Arbeiter keineswegs, einen ganzen Tag zu arbeiten. Der Wert der Arbeitskraft und ihre Verwertung im Arbeitsprozeß sind also zwei verschiedene Größen.

Diese Wertdifferenz hatte der Kapitalist im Auge, als er die Arbeitskraft kaufte. Ihre nützliche Eigenschaft, Garn oder Stiefel zu machen, war nur eine *conditio sine qua non*, weil Arbeit in nützlicher Form verausgabt werden muß, um Wert zu bilden. Was aber entschied, war der spezifische Gebrauchswert dieser Ware, Quelle von Wert zu sein

What really influenced him was the specific use-value which this commodity possesses of being *a source not only of value, but of more value than it has itself*. This is the special service that the capitalist expects from labor-power.

↓ Although the capitalist gets something for nothing, he is not violating the laws of commodity exchange.

In this transaction he acts in accordance with the “eternal laws” of the exchange of commodities. The seller of labor-power, like the seller of any other commodity, realises its exchange-value, and parts with its use-value. He cannot take the one without giving the other. The use-value of labor-power, or in other words, labor, belongs just as little to its seller, as the use-value of oil after it has been sold belongs to the dealer who has sold it. The owner of the money has paid the value of a day’s labor-power; his, therefore, is the use of it for a day; a day’s labor belongs to him. The circumstance, that on the one hand the daily sustenance of labor-power costs only half a day’s labor, while on the other hand the very same labor-power can work during a whole day, that consequently the value which its use during one day creates, is double what he pays for that use, this circumstance is, without doubt, a piece of good luck for the buyer, but by no means an injustice to the seller.

und von mehr Wert, als sie selbst hat. Dies ist der spezifische Dienst, den der Kapitalist von ihr erwartet.

Und er verfährt dabei den ewigen Gesetzen des Warenaustausches gemäß. In der Tat, der Verkäufer der Arbeitskraft, wie der Verkäufer jeder andren Ware, realisiert ihren Tauschwert und veräußert ihren Gebrauchswert. Er kann den einen nicht erhalten, ohne den andren wegzugeben. Der Gebrauchswert der Arbeitskraft, die Arbeit selbst, gehört ebensowenig ihrem Verkäufer, wie der Gebrauchswert des verkauften Öls dem Ölhändler. Der Geldbesitzer hat den Tageswert der Arbeitskraft gezahlt; ihm gehört daher ihr Gebrauch während des Tages, die tagelange Arbeit. Der Umstand, daß die tägliche Erhaltung der Arbeitskraft nur einen halben Arbeitstag kostet, obgleich die Arbeitskraft einen ganzen Tag wirken, arbeiten kann, daß daher der Wert, den ihr Gebrauch während eines Tags schafft, doppelt so groß ist als ihr eigener Tageswert, ist ein besonderes Glück für den Käufer, aber durchaus kein Unrecht gegen den Verkäufer.

Question 773 Does it violate the laws of commodity exchange that the capitalist makes the laborer work longer than would be necessary for producing an equivalent of the wage?

Question 774 Why does Marx put quotation marks around “eternal laws” when he says: the capitalist acts in accordance with the “eternal laws” of the exchange of commodities?

Question 775 What is the difference between the purchase of a service and the purchase of labor-power? 2012fa, 2010fa.

↓ One of the conditions for valorization is that enough constant capital must be present.

204:1/o Our capitalist foresaw this state of things, and that was the cause of his laughter.

208:1/o Unser Kapitalist hat den Kasus, der ihn lachen macht, vorgesehn.

The capitalist never thought that he can only employ the laborer for 6 hours because the price of labor-power corresponds to 6 hours of labor. If the normal working-day is 12 hours, the laborer will have to work for 12 hours, since he was paid the means of subsistence for one day.

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The laborer therefore finds, in the workshop, the means of production necessary for working, not only during six, but during twelve hours.

⇓ If we do the math in this situation, it turns out that surplus-value has been created:

Just as during the six hours' process our 10 lbs. of cotton absorbed six hours' labor, and became 10 lbs. of yarn, so now, 20 lbs. of cotton will absorb 12 hours' labor and be changed into 20 lbs. of yarn. Let us now examine the product of this prolonged process. There is now materialised in this 20 lbs. of yarn the labor of five days, of which four days are due to the cotton and the lost steel of the spindle, the remaining day having been absorbed by the cotton during the spinning process. Expressed in gold, the labor of five days is \$7.20. This is therefore the price of the 20 lbs. of yarn, giving, as before, 36 cents as the price of each pound. But the sum of the values of the commodities that entered into the process amounts to \$6.48. The value of the yarn is \$7.20. Therefore the value of the product is 1/9 greater than the value advanced for its production; \$6.48 have been transformed into \$7.20; a surplus-value of 72 cents has been created. The trick has at last succeeded; money has been converted into capital.

⇓ In the next summary paragraph, Marx looks at the process of valorization in production together with the purchase of labor-power and means of production. He shows that this is the resolution of the task set in 176:3/o. Surplus-value has been created without violating the laws of commodity exchange.

205:1 Every condition of the problem is satisfied, while the laws that regulate the exchange of commodities, have been in no way violated. Equivalent has been exchanged for equivalent. For the capitalist as buyer paid for each commodity, for the cotton, the spindle and the labor-power, its full value. He then did what is done by every purchaser of commodities; he consumed their use-value. The consumption of the labor-power, which was also the process of producing commodities, resulted in 20 lbs. of yarn, having a value of \$7.20. The capitalist, formerly a buyer, now returns to

Der Arbeiter findet daher in der Werkstatt die nötigen Produktionsmittel nicht nur für einen sechsständigen, sondern für einen zwölfständigen Arbeitsprozeß.

Saugten 10 Pfund Baumwolle 6 Arbeitsstunden ein und verwandelten sich in 10 Pfund Garn, so werden 20 Pfund Baumwolle 12 Arbeitsstunden einsaugen und in 20 Pfund Garn verwandelt. Betrachten wir das Produkt des verlängerten Arbeitsprozesses. In den 20 Pfund Garn sind jetzt 5 Arbeitstage vergegenständlicht, 4 in der verzehrten Baumwoll- und Spindelmasse, 1 von der Baumwolle eingesaugt während des Spinnprozesses. Der Goldausdruck von 5 Arbeitstagen ist aber 30 sh. oder 1 Pfd.St. 10 sh. Dies also der Preis der 20 Pfund Garn. Das Pfund Garn kostet nach wie vor 1 sh. 6 d. Aber die Wertsomme der in den Prozeß geworfenen Waren betrug 27 sh. Der Wert des Garns beträgt 30 sh. Der Wert des Produkts ist um 1/9 gewachsen über den zu seiner Produktion vorgeschossenen Wert. So haben sich 27 sh. in 30 sh. verwandelt. Sie haben einen Mehrwert von 3 sh. gesetzt. Das Kunststück ist endlich gelungen. Geld ist in Kapital verwandelt.

209:1 Alle Bedingungen des Problems sind gelöst und die Gesetze des Warenaustausches in keiner Weise verletzt. Äquivalent wurde gegen Äquivalent ausgetauscht. Der Kapitalist zahlte als Käufer jede Ware zu ihrem Wert, Baumwolle, Spindelmasse, Arbeitskraft. Er tat dann, was jeder andre Käufer von Waren tut. Er konsumierte ihren Gebrauchswert. Der Konsumtionsprozeß der Arbeitskraft, der zugleich Produktionsprozeß der Ware, ergab ein Produkt von 20 Pfund Garn mit einem Wert von 30 sh. Der Kapitalist kehrt nun zum Markt zurück und verkauft Ware, nachdem er Ware ge-

market as a seller, of commodities. He sells his yarn at 36 cents a pound, which is its exact value. Yet for all that he withdraws 72 cents more from circulation than he originally threw into it.

The whole process takes place in circulation and not in circulation (the first act in circulation and the second act not in circulation).

This metamorphosis, this conversion of money into capital, takes place both within the sphere of circulation and also outside it; within the circulation, because conditioned by the purchase of the labor-power in the market; outside the circulation, because what is done within it is only a stepping-stone to the production of surplus-value, a process which is entirely confined to the sphere of production. Thus “tout est pour le mieux dans le meilleur des mondes possibles.”

kauft hat. Er verkauft das Pfund Garn zu 1 sh. 6 d., keinen Deut über oder unter seinem Wert. Und doch zieht er 3 sh. mehr aus der Zirkulation heraus, als er ursprünglich in sie hineinwarf.

Dieser ganze Verlauf, die Verwandlung seines Geldes in Kapital, geht in der Zirkulationssphäre vor und geht nicht in ihr vor. Durch die Vermittlung der Zirkulation, weil bedingt durch den Kauf der Arbeitskraft auf dem Warenmarkt. Nicht in der Zirkulation, denn sie leitet nur den Verwertungsprozeß ein, der sich in der Produktionssphäre zuträgt. Und so ist „tout pour le mieux dans le meilleur des mondes possibles“

Question 776 Explain how the transformation of money into capital at the same time does and does not take place in circulation. 2012fa.

↑ This not only solves the contradictory conditions of 176:3/o, ↓ but this combination of production and circulation at the same time generates a new powerful causal agent.

205:2 By turning his money into commodities that serve as the material elements of a new product, and as factors in the labor-process, by incorporating living labor with their dead substance, the capitalist at the same time converts value, *i.e.*, past, materialised, and dead labor into capital, into value big with value, a live monster that is fruitful and multiplies.

209:2 Indem der Kapitalist Geld in Waren verwandelt, die als Stoffbildner eines neuen Produkts oder als Faktoren des Arbeitsprozesses dienen, indem er ihrer toten Gegenständlichkeit lebendige Arbeitskraft einverleibt, verwandelt er Wert, vergangne, vergegenständlichte, tote Arbeit in Kapital, sich selbst verwertenden Wert, ein beseeltes Ungeheuer, das zu „arbeiten“ beginnt, als hätt' es Lieb' im Leibe.

7.2.c. [Differences Between Production of Value, Production of Surplus-Value, and the Labor Process]

↓ The difference between the production of value and the production of surplus-value is only quantitative.

205:3/o If we now compare the process of producing value with that of producing surplus-value, we see that the latter is nothing but the continuation of the former beyond a definite point. If on the one hand the process be not carried beyond the point, where the value paid by the capitalist for the

209:3 Vergleichen wir nun Wertbildungsprozeß und Verwertungsprozeß, so ist der Verwertungsprozeß nichts als ein über einen gewissen Punkt hinaus verlängerter Wertbildungsprozeß. Dauert der letztre nur bis zu dem Punkt, wo der vom Kapital gezahlte Wert der Arbeitskraft durch ein neues Äqui-

7. Labor Process and Valorization Process

labor-power is replaced by an exact equivalent, it is simply a process of producing value; if, on the other hand, it be continued beyond that point, it becomes a process of producing surplus-value.

valent ersetzt ist, so ist er einfacher Wertbildungsprozeß. Dauert der Wertbildungsprozeß über diesen Punkt hinaus, so wird er Verwertungsprozeß.

↑ In other words, the production of surplus-value is not an integral part of the production of value itself (surplus-value is not produced by machinery or growing out of the ground). Instead, surplus-value arises from the prolongation of the production of value beyond a point which is not discernible in the production of value itself, but which is determined from the outside.

Question 777 Marx writes in 302:2: “The process of producing surplus-value is nothing but the continuation of the process of producing value beyond a definite point.” (This is not a literal quote, the sentence is rearranged for simplicity.) Does this mean that profits come from the capitalist producing beyond his break-even point? 2012fa.

Question 778 How do vulgar economists “explain” that surplus-value comes out of the process of producing value? Which difference between the process of producing value and the process of producing surplus-value are they trying to explain away?

↓ Next, Marx gives an explicit rundown of the differences between the process of producing value and the labor process, which were implicitly already contained in his presentation of the process of producing value. Marx shows here that the production of value is the same process as the labor process, but considered under a different point of view.

206:1 If we proceed further, and compare the process of producing value with the labor-process, pure and simple, we find that the latter consists of the useful labor, the work, that produces use-values. Here we contemplate the labor as producing a particular article; we view it under its qualitative aspect alone, with regard to its end and aim. But viewed as a value-creating process, the same labor-process represents itself under its quantitative aspect alone. The only thing that still matters here is the time occupied by the laborer in doing the work; the period during which the labor-power is usefully expended.

209:4/o Vergleichen wir ferner den Wertbildungsprozeß mit dem Arbeitsprozeß, so besteht der letztere in der nützlichen Arbeit, die Gebrauchswerte produziert. Die Bewegung wird hier qualitativ betrachtet, in ihrer besondern Art und Weise, nach Zweck und Inhalt. Derselbe Arbeitsprozeß stellt sich im Wertbildungsprozeß nur von seiner quantitativen Seite dar. Es handelt sich nur noch um die Zeit, welche die Arbeit zu ihrer Operation braucht, oder um die Dauer, während deren die Arbeitskraft nützlich verausgabt wird.

↑ The overall process of producing values is no longer considered qualitatively but only quantitatively. ↓ The means of production are no longer factors involved in the production process but merely additional values.

Here, the commodities that take part in the process, do not count any longer as necessary adjuncts of labor-power in the production of a definite, useful object. They count merely as depositories of so much absorbed or materialised labor.

Hier gelten auch die Waren, die in den Arbeitsprozeß eingehn, nicht mehr als funktionell bestimmte, stoffliche Faktoren der zweckmäßig wirkenden Arbeitskraft. Sie zählen nur noch als bestimmte Quanta vergegenständlichter Arbeit.

↓ Labor itself, whether living or materialized, counts only according to its duration.

That labor, whether previously embodied in the means of production, or incorporated in them for the first time during the process by the action of labor-power, counts in either case only according to its duration; it amounts to so many hours or days as the case may be.

↓ An important caveat is that the quantity counts only to the extent that the labor is socially necessary labor.

206:2/o However, only so much of the time spent in the production of any article is counted, as, under the given social conditions, is necessary. This implies various things.

↓ Conditions of labor must be normal:

In the first place, it becomes necessary that the labor should be carried on under normal conditions. If a self-acting mule is the implement in general use for spinning, it would be absurd to supply the spinner with a distaff and spinning wheel. The cotton too must not be such rubbish as to cause extra waste in being worked, but must be of suitable quality. Otherwise the spinner would be found to spend more time in producing a pound of yarn than is socially necessary, in which case the excess of time would create neither value nor money. But whether the material factors of the process are of normal quality or not, depends not upon the laborer, but entirely upon the capitalist.

↓ Labor-power itself must be normal too:

Then again, the labor-power itself must be of average efficacy. In the trade in which it is being employed, it must possess the average skill, handiness and quickness prevalent in that trade, and our capitalist took good care to buy labor-power of such normal goodness.

↓ Labor-power must be applied continuously and with normal intensity:

This power must be applied with the common measure of exertion, with the usual degree of intensity; and the capitalist is as careful to see that this is done, as that his workmen are not idle for a single moment. He has bought the use of the labor-power for a definite period, and he insists upon his

Ob in den Produktionsmittel enthalten oder durch die Arbeitskraft zugesetzt, die Arbeit zählt nur noch nach ihrem Zeitmaß. Sie beträgt so viel Stunden, Tage usw.

210:1 Sie zählt jedoch nur, soweit die zur Produktion des Gebrauchswerts verbrauchte Zeit gesellschaftlich notwendig ist. Es umfaßt dies Verschiednes.

Die Arbeitskraft muß unter normalen Bedingungen funktionieren. Ist die Spinnmaschine das gesellschaftlich herrschende Arbeitsmittel für die Spinnerei, so darf dem Arbeiter nicht ein Spinnrad in die Hand gegeben werden. Statt Baumwolle von normaler Güte muß er nicht Schund erhalten, der jeden Augenblick reißt. In beiden Fällen würde er mehr als die gesellschaftlich notwendige Arbeitszeit zur Produktion eines Pfundes Garn verbrauchen, diese überschüssige Zeit aber nicht Wert oder Geld bilden. Der normale Charakter der gegenständlichen Arbeitsfaktoren hängt jedoch nicht vom Arbeiter, sondern vom Kapitalisten ab.

Fernere Bedingung ist der normale Charakter der Arbeitskraft selbst. In dem Fach, worin sie verwandt wird, muß sie das herrschende Durchschnittsmaß von Geschick, Fertigkeit und Raschheit besitzen. Aber unser Kapitalist kaufte auf dem Arbeitsmarkt Arbeitskraft von normaler Güte.

Diese Kraft muß in dem gewöhnlichen Durchschnittsmaß der Anstrengung, mit dem gesellschaftlich üblichen Grad von Intensität verausgabt werden. Darüber wacht der Kapitalist ebenso ängstlich, als daß keine Zeit ohne Arbeit vergeudet wird. Er hat die Arbeitskraft für bestimmte Zeitfrist ge-

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rights. He has no intention of being robbed.

kauft. Er hält darauf, das Seine zu haben. Er will nicht bestohlen sein.

⇓ Means of labor must be used in a normal and purposeful way:

Lastly, and for this purpose our friend has a penal code of his own, all wasteful consumption of raw material or instruments of labor is strictly forbidden, because what is so wasted, represents labor superfluously expended, labor that does not count in the product or enter into its value.¹⁷

Endlich—und hierfür hat derselbe Herr einen eignen code pénal—darf kein zweckwidriger Konsum von Rohmaterial und Arbeitsmitteln stattfinden, weil vergeudetes Material oder Arbeitsmittel überflüssig verausgabte Quanta vergegenständlichter Arbeit darstellen, also nicht zählen und nicht in das Produkt der Wertbildung eingehn.¹⁷

⇓ Interesting and detailed footnote about slavery:

¹⁷ This is one of the circumstances that makes production by slave labor such a costly process. The laborer here is, to use a striking expression of the ancients, distinguishable only as instrumentum vocale, from an animal as instrumentum semi-vocale, and from an implement as instrumentum mutum. But he himself takes care to let both beast and implement feel that he is none of them, but is a man. He convinces himself with immense satisfaction, that he is a different being, by treating the one unmercifully and damaging the other con amore.

¹⁷ Dies ist einer der Umstände, die auf Sklaverei gegründete Produktion verteuern. Der Arbeiter soll sich hier, nach dem treffenden Ausdruck der Alten, nur als instrumentum vocale von dem Tier als instrumentum semivocale und dem toten Arbeitszeug als instrumentum mutum unterscheiden. Er selbst aber läßt Tier und Arbeitszeug fühlen, daß er nicht ihresgleichen, sondern ein Mensch ist. Er verschafft sich das Selbstgefühl seines Unterschieds von ihnen, indem er sie mißhandelt und con amore verwüstet.

↑ This is an amazing foray into psychology!

^{17 ctd} Hence the principle, universally applied in this method of production, only to employ the rudest and heaviest implements and such as are difficult to damage owing to their sheer clumsiness. In the slave-states bordering on the Gulf of Mexico, down to the date of the civil war, ploughs constructed on old Chinese models, which turned up the soil like a hog or a mole, instead of making furrows, were alone to be found. Conf. J. E. Cairnes. "The Slave Power," London, 1862, p. 46 sqq. In his "Sea Board Slave States," Olmsted tells us: "I am here shown tools that no man in his senses, with us, would allow a laborer, for whom he was paying wages, to be encumbered with; and the excessive weight and clumsiness of which, I would judge, would make work at least ten per cent greater than with those ordinarily used with us. And I am assured that, in the careless and clumsy way they must be used by the slaves, anything lighter or less rude could not be furnished them with good economy, and that such tools as we constantly give our laborers and find our profit in giving them, would not last out a day in a Virginia cornfield—much lighter and more free from stones though it be than ours.

^{17 ctd} Es gilt daher als ökonomisches Prinzip in dieser Produktionsweise, nur die rohesten, schwerfälligsten, aber grade wegen ihrer unbehilflichen Plumpheit schwer zu ruinierenden Arbeitsinstrumente anzuwenden. Bis zum Ausbruch des Bürgerkrieges fand man daher in den am Meerbusen von Mexiko liegenden Sklavenstaaten Pflüge altchinesischer Konstruktion, die den Boden aufwühlen wie ein Schwein oder Maulwurf, aber ihn nicht spalten und wenden. Vgl. J. E. Cairnes, „The Slave Power“, London 1862, p. 46 sqq. In seinem „Seaboard Slave States“ [p. 46, 47] erzählt Olmsted u.a.: „Man hat mir hier Werkzeuge gezeigt, mit denen bei uns kein vernünftiger Mensch seinen Arbeiter belasten würde, dem er Lohn zahlt. Ihr außerordentliches Gewicht und ihre Plumpheit müssen nach meiner Ansicht die Arbeit mit ihnen um mindestens 10 Prozent schwerer machen als mit den gewöhnlich bei uns verwendeten. Wie man mir jedoch versichert, ist es bei der fahrlässigen und klobigen Art, in der sie von den Sklaven anscheinend benutzt werden, nicht möglich, ihnen mit gutem Erfolg leichtere oder weniger derbe Werkzeuge anzuvertrauen; solche Werk-

So, too, when I ask why mules are so universally substituted for horses on the farm, the first reason given, and confessedly the most conclusive one, is that horses cannot bear the treatment that they always must get from negroes; horses are always soon foundered or crippled by them, while mules will bear cudgelling, or lose a meal or two now and then, and not be materially injured, and they do not take cold or get sick, if neglected or overworked. But I do not need to go further than to the window of the room in which I am writing, to see at almost any time, treatment of cattle that would ensure the immediate discharge of the driver by almost any farmer owning them in the North.”

zeuge, wie wir sie ständig, und zwar mit gutem Gewinn für uns, unseren Arbeitern anvertrauen, würden auf einem Kornfeld in Virginia nicht einen Tag überdauern—obwohl der Boden leichter und steinfreier ist als der unsere. Gleichfalls wurde mir auf meine Frage, warum auf den Farmen so allgemein Pferde durch Maultiere ersetzt werden, als erster und zugestandenermaßen ausschlaggebender Grund angegeben, daß Pferde die Behandlung nicht ertragen, die sie von den Negern ständig und zwangsläufig erfahren. Pferde werden von ihnen nach kurzer Zeit lahm gemacht und zu Krüppeln geschlagen, während Maultiere Prügel und hie und da den Ausfall von ein oder zwei Fütterungen aushalten, ohne körperlich geschädigt zu werden. Sie erkälten sich auch nicht und werden nicht krank, wenn sie vernachlässigt und überarbeitet werden. Doch ich brauche gar nicht weiter zu gehen als zum Fenster des Zimmers, in dem ich schreibe, um fast zu jeder Zeit eine Behandlung des Viehs zu sehen, die wohl bei jedem Farmer im Norden zur sofortigen Entlassung des Treibers führen würde.“

⇓ The double character of labor, which was previously derived as a theoretical result, as something that must be the case for commodity production to be possible, is directly visible if one simply looks at the different sides of the production process itself:

207:1 One sees: the difference between labor, considered on the one hand as producing use-values, and on the other hand as producing value, a difference which we arrived at by our analysis of the commodity, represents itself now as a distinction between the different aspects of the process of production.

211:1 Man sieht: der früher aus der Analyse der Ware gewonnene Unterschied zwischen der Arbeit, soweit sie Gebrauchswert, und derselben Arbeit, soweit sie Wert schafft, hat sich jetzt als Unterscheidung der verschiedenen Seiten des Produktionsprozesses dargestellt.

Question 779 *What is the relationship between the double character of labor and the double character of the capitalist production process?*

⇓ All this applies both to simple commodity production and to capitalist production:

207:2/o The process of production, considered on the one hand as the unity of the labor-process and the process of producing value, is production of commodities; considered on the other hand as the unity of the labor-process and the process of producing surplus-value, it is the capitalist process of production, or capitalist production of commodities.

211:2 Als Einheit von Arbeitsprozeß und Wertbildungsprozeß ist der Produktionsprozeß Produktionsprozeß von Waren; als Einheit von Arbeitsprozeß und Verwertungsprozeß ist er kapitalistischer Produktionsprozeß, kapitalistische Form der Warenproduktion.

7.2.d. [Simple and Complicated Labor]

The chapter ends with a passage about the reduction of complicated to simple labor:

208:1 We stated, on a previous page, that in the creation of surplus-value it does not in the least matter, whether the labor appropriated by the capitalist be simple unskilled labor of average quality or more complicated skilled labor. All labor of a higher or more complicated character than average labor is expenditure of labor-power of a more costly kind, labor-power whose production has cost more time and labor, and which therefore has a higher value, than unskilled or simple labor-power.

211:3/o Es wurde früher bemerkt, daß es für den Verwertungsprozeß durchaus gleichgültig, ob die vom Kapitalisten angeeignete Arbeit einfache, gesellschaftliche Durchschnittsarbeit oder kompliziertere Arbeit, Arbeit von höherem spezifischen Gewicht ist. Die Arbeit, die als höhere, kompliziertere Arbeit gegenüber der gesellschaftlichen Durchschnittsarbeit gilt, ist die Äußerung einer Arbeitskraft, worin höhere Bildungskosten eingehen, deren Produktion mehr Arbeitszeit kostet und die daher einen höheren Wert hat als die einfache Arbeitskraft.

⇓ This labor-power not only *has* a higher value than simple labor-power, but it also *creates* more value per hour:

While the value of this power is higher, also its consumption is labor of a higher class, labor that creates in equal times proportionally higher values than unskilled labor does. Whatever difference in skill there may be between the labor of a spinner and that of a jeweller, the portion of his labor by which the jeweller merely replaces the value of his own labor-power, does not in any way differ in quality from the additional portion by which he creates surplus-value. In the making of jewellery, just as in spinning, the surplus-value results only from a quantitative excess of labor, from a lengthening-out of one and the same labor-process, in the one case, of the process of making jewels, in the other of the process of making yarn.¹⁸

Ist der Wert dieser Kraft höher, so äußert sie sich daher auch in höherer Arbeit und vergegenständlicht sich daher, in denselben Zeiträumen, in verhältnismäßig höheren Werten. Welches jedoch immer der Gradunterschied zwischen Spinnarbeit und Juwelierarbeit, die Portion Arbeit, wodurch der Juwelenarbeiter nur den Wert seiner eigenen Arbeitskraft ersetzt, unterscheidet sich qualitativ in keiner Weise von der zusätzlichen Portion Arbeit, wodurch er Mehrwert schafft. Nach wie vor kommt der Mehrwert nur heraus durch einen quantitativen Überschuß von Arbeit, durch die verlängerte Dauer desselben Arbeitsprozesses, in dem einen Fall Prozeß der Garnproduktion, in dem andren Fall Prozeß der Juwelenproduktion.¹⁸

↑ On the one hand, the labor of the skilled worker has a higher reproduction cost than the labor of the unskilled worker. But on the other, skilled labor counts as “multiplied” simple labor, i.e., it creates more value per hour. Although Marx writes “therefore,” I do not think that it creates more value *because* it has higher reproduction cost. I think Marx had the following causality in mind: Skilled labor is labor of higher order. This has two implications: (1) it has a higher value because of its higher reproduction cost, and (2) it creates more value per hour because the labor-time required to gain these skills is pro-rated over the time when the skilled labor is performed. Since both cost and yield are higher, the mechanism by which surplus-value is created is the same for skilled and unskilled labor: in both cases, surplus-value arises from the extension of the length of the labor-process beyond the point where it reproduces its own value. ⇓ Although the mechanism with the proration of the time required to acquire skills explains most of the qualitative differences in labor-

powers, it does not explain all of them. Footnote 18 makes important remarks about skilled and unskilled labor:

¹⁸ The distinction between skilled and unskilled labor rests in part on pure illusion or, to say the least, on distinctions that have long since ceased to be real, and that survive only by virtue of a traditional convention; in part on the helpless condition of some groups of the working-class, a condition that prevents them from exacting equally with the rest the value of their labor-power. Accidental circumstances here play so great a part, that these two forms of labor sometimes change places. Where, for instance, the physique of the working-class has deteriorated, and is, relatively speaking, exhausted, which in the case in all countries with a well developed capitalist production, the lower forms of labor, which demand great expenditure of muscle, are in general considered as skilled, compared with much more delicate forms of labor; the latter sink down to the level of unskilled labor. Take as an example the labor of a bricklayer, which in England occupies a much higher level than that of a damask-weaver. Again, although the labor of a fustian cutter demands great bodily exertion, and is at the same time unhealthy, yet it counts only as unskilled labor. And then, we must not forget, that the so-called skilled labor does not occupy a large space in the field of national labor. Laing estimates that in England (and Wales) the livelihood of 11,300,000 people depends on unskilled labor. If from the total population of 18,000,000 living at the time when he wrote, we deduct 1,000,000 for the "genteel population," and 1,500,000 for paupers, vagrants, criminals, prostitutes, etc., and 4,650,000 who compose the middle-class, there remain the above mentioned 11,000,000. But in his middle-class he includes people that live on the interest of small investments, officials, men of letters, artists, schoolmasters and the like, and in order to swell the number he also includes in these 4,650,000 the better paid portio of the factory operatives! The bricklayers, too, figure amongst them. (S. Laing: "National Distress," etc., London, 1844). "The great class who have nothing to give for food but ordinary labor, are the great bulk of the people." (James Mill, in art.: "Colony," Supplement to the Encyclop. Brit., 1831.)

209:1 But on the other hand, in every process of producing value, the reduction of

¹⁸ Der Unterschied zwischen höherer und einfacher Arbeit, „skilled“ und „unskilled labour“, beruht zum Teil auf bloßen Illusionen oder wenigstens Unterschieden, die längst aufgehört haben, reell zu sein, und nur noch in traditioneller Konvention fortleben; zum Teil auf der hilflosen Lage gewisser Schichten der Arbeiterklasse, die ihnen minder als andren erlaubt, den Wert ihrer Arbeitskraft zu ertrotzen. Zufällige Umstände spielen dabei so große Rolle, daß dieselben Arbeitsarten den Platz wechseln. Wo z.B. die physische Substanz der Arbeiterklasse abgeschwächt und relativ erschöpft ist, wie in allen Ländern entwickelter kapitalistischer Produktion, verkehren sich im allgemeinen brutale Arbeiten, die viel Muskelkraft erfordern, in höher gegenüber viel feineren Arbeiten, die auf die Stufe einfacher Arbeit herabsinken, wie z.B. die Arbeit eines bricklayer (Maurer) in England eine viel höhere Stufe einnimmt als die eines Damastwirkers. Auf der andren Seite figurirt die Arbeit eines fustian cutter (Baumwollsamtscherers), obgleich sie viel körperliche Anstrengung kostet und obendrein sehr ungesund ist, als „einfache“ Arbeit. Übrigens muß man sich nicht einbilden, daß die sogenannte „skilled labour“ einen quantitativ bedeutenden Umfang in der Nationalarbeit einnimmt. Laing rechnet, daß in England (und Wales) die Existenz von über 11 Millionen auf einfacher Arbeit beruht. Nach Abzug einer Million von Aristokraten und anderthalb Millionen Paupers, Vagabunden, Verbrecher, Prostituierte usw. von den 18 Millionen der Bevölkerungszahl, zur Zeit seiner Schrift, bleiben 4 650 000 Mittelklasse mit Einschluß kleinerer Rentner, Beamten, Schriftsteller, Künstler, Schulmeister usw. Um diese 4 2/3 Millionen herauszubekommen, zählt er zum arbeitenden Teil der Mittelklasse, außer Bankiers usw., alle besser bezahlten „Fabrikarbeiter“! Auch die bricklayers fehlen nicht unter den „potenzierten Arbeitern“. Bleiben ihm dann die besagten 11 Millionen. (S. Laing, „National Distress etc.“, London 1844, [p. 49–52 passim].) „Die große Klasse, die für Nahrung nichts zu geben vermag als gewöhnliche Arbeit, ist die große Masse des Volkes.“ (James Mill in Art. „Colony“. „Supplement to the Encyclop. Brit.“, 1831.)

213 Andererseits muß in jedem Wertbildungsprozeß die höhere Arbeit stets auf ge-

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skilled labor to average social labor, *e.g.*, one day of skilled to x days of unskilled labor, is unavoidable.¹⁹ We therefore save ourselves a superfluous operation, and simplify our analysis, by the assumption, that the labor of the workman employed by the capitalist is unskilled average labor.

¹⁹ “Where reference is made to labor as a measure of value, it necessarily implies labor of one particular kind . . . the proportion which the other kinds bear to it being easily ascertained.” (“Outlines of Pol. Econ.,” Lond., 1832, pp. 22 and 23.)

gesellschaftliche Durchschnittsarbeit reduziert werden, z.B. ein Tag höherer Arbeit auf x Tage einfacher Arbeit.¹⁹ Man erspart also eine überflüssige Operation und vereinfacht die Analyse durch die Annahme, daß der vom Kapital verwandte Arbeiter einfache gesellschaftliche Durchschnittsarbeit verrichtet.

¹⁹ „Wo von Arbeit als Maßstab des Wertes gesprochen wird, versteht man darunter notwendigerweise Arbeit einer bestimmten Art . . . das Verhältnis, in dem die andren Arten von Arbeit zu ihr stehen, ist leicht zu ermitteln.“ ([J. Cazenove,] „Outlines of Polit. Economy“, London 1832, p. 22, 23.)

This argument is much elaborated in the French edition, [megaII/7]163:1:

On the other hand, whenever the production of value is the issue, higher labor must always be reduced to average social labor, for instance one day of complicated labor to two days of simple labor. If the mainstream economists are full of indignation about this “arbitrary assertion,” isn’t this an occasion to say, according to the German proverb, that the trees prevent them from seeing the forest! What they claim to be an artifact of the analysis is simply a procedure which is practiced every day in every corner of the world. Everywhere, the values of the most diverse commodities are indistinctly expressed in money, that means, in a certain amount of gold or silver. By this very act, the different kinds of labor represented in these values have been reduced in various proportions to determinate amounts of one and the same kind of social labor, the labor which produces gold and silver.

D’un autre côté, quand il s’agit de production de valeur, le travail supérieur doit toujours être réduit à la moyenne du travail social, une journée de travail complexe, par exemple, à deux journées de travail simple. Si des économistes comme il faut se sont récriés contre cette « assertion arbitraire », n’est ce pas le cas de dire, selon le proverbe allemand, que les arbres les empêchent de voir la forêt ! Ce qu’ils accusent d’être un artifice d’analyse, est tout bonnement un procédé qui se pratique tous les jours dans tous les coins du monde. Partout les valeurs des marchandises les plus diverses sont indistinctement exprimées en monnaie, c’est à dire dans une certaine masse d’or ou d’argent. Par cela même, les différents genres de travail, représentés par ces valeurs, ont été réduits, dans des proportions différentes, à des sommes déterminées d’une seule et même espèce de travail ordinaire, le travail qui produit l’or ou l’argent.

Gold producing labor is not the same as simple labor. But Marx does not say here that all complicated labor is reduced to gold producing labor. He argues that in the production of commodities, the qualitative differences between concrete labors are reduced to mere quantitative differences in abstract labor, with simple abstract labor, as it is possessed by every worker in the given country, being the numeraire. In order to support his claim that such a reduction takes place, he shows that in circulation, all commodities are reduced to gold, therefore the labor in them is reduced to gold-producing labor. But this is in circulation, not in production; from the second peculiarity of the equivalent form, 69:1, we know that in circulation, “concrete labor” (*i.e.*, the labor producing gold) “becomes the form of manifestation of its opposite, abstract human labor.”

7.2. Valorization Process

Question 780 *What is the difference between production as the creation of use-value and production as the process of producing value? Compare especially the relationship between labor and the objective factors of the labor process.*

Term Paper Topic 781 *Essay about Chapter Eight: Constant and Variable Capital* [2008fa](#), [2007fa](#), [2001fa](#), [1999SP](#), [1998WI](#), [1997sp](#).

Term Paper Topic 782 *Essay about Chapter Nine: The Rate of Surplus Value* [2013fa](#), [2012fa](#), [2009fa](#), [2008fa](#).

8. Constant Capital and Variable Capital

Chapter Eight is one of the tedious chapters where Marx dwells endlessly on seemingly pedantic, trivial, and obvious things. It is so verbose that it is easy to lose sight of the points Marx is trying to make here.

Yet this is a significant chapter, since it discusses one of the basic contradictions of capitalism. Capital engages in the production process because it must *expand* its value. But only a part of the capital is in fact able to expand its value during the production process; the rest of the value must take a shape in which its value remains *constant*. This contradiction can lead to crises.

8.1. [Creation of Value]

The first portion of this chapter discusses the different roles which the subjective factor (labor) of the labor process and its objective factors (means of labor and object of labor) play in the creation of the *value* of the product. Marx does not yet talk about creation of surplus-value, but only creation of value. I.e., the value of labor-power is not mentioned here.

209:2 The various factors of the labor-process play different parts in the constitution of the product's value.

214:1 Die verschiedenen Faktoren des Arbeitsprozesses nehmen verschiedenen Anteil an der Bildung des Produkten-Werts.

8.1.a. [Role of Labor]

The action of the *subjective factor* of the labor process has two different results: transfer of value and creation of new value. Since the laborer does not work twice for these two different results, Marx argues that the two-fold nature of the result must come from a two-fold nature of the labor process itself:

- Preservation of value comes from the concrete useful labor
- Creation of new value comes abstract general labor

⇓ Let us look at this argument in detail:

209:3 The laborer adds fresh value to the object of his labor by expending upon it a given amount of additional labor, regardless of the specific content, purpose, and technical character of that labor.

214:2 Der Arbeiter setzt dem Arbeitsgegenstand neuen Wert zu durch Zusatz eines bestimmten Quantum von Arbeit, abgesehen vom bestimmten Inhalt, Zweck und technischen Charakter seiner Arbeit.

↑ The production of value is one of the results of the labor process. In chapter Seven, 199:1, Marx emphasized that the concrete particularity of labor is irrelevant for the production of value, only its quantity counts. ↓ But this same labor process also has a second result with respect to *value*:

On the other hand, the values of the means of production used up in the process are preserved, and reappear as constituent parts of the value of the product; the values of the cotton and the spindle, for instance, in the value of the yarn. The value of the means of production is therefore preserved, by its transfer to the product.

Andrerseits finden wir die Werte der verzehrten Produktionsmittel wieder als Bestandteile des Produkten-Werts, z.B. die Werte von Baumwolle und Spindel im Garnwert. Der Wert der Produktionsmittel wird also erhalten durch seine Übertragung auf das Produkt.

From the standpoint of modern social sciences, this transfer of value would be considered a plausible assumption which is necessary to make the labor theory of value consistent. The question how this transfer happens is not asked. But Marx is a realist: he does not consider the transfer of value as an axiomatic assumption about the labor process, but instead looks for the real mechanisms through which this value is transferred.

This transfer takes place during the conversion of those means into a product, or in other words, during the labor-process. It is mediated by labor; but how?

Dies Übertragen geschieht während der Verwandlung der Produktionsmittel in Produkt, im Arbeitsprozeß. Es ist vermittelt durch die Arbeit. Aber wie?

First step to answer the question how the labor process transfers value: this two-fold result is not achieved by two different operations on the part of the laborer, but both results come from the same process:

209:4/o The laborer does not perform two different operations, one in order to add value to the cotton, the other in order to preserve the value of the means of production, or, what amounts to the same thing, to transfer to the yarn, to the product, the value of the cotton on which he works, and part of the value of the spindle with which he works. But, by the very act of adding new value, he preserves their former values.

214:3 Der Arbeiter arbeitet nicht doppelt in derselben Zeit, nicht einmal, um der Baumwolle durch seine Arbeit einen Wert zuzusetzen, und das andermal, um ihren alten Wert zu erhalten, oder, was dasselbe, um den Wert der Baumwolle, die er verarbeitet, und der Spindel, womit er arbeitet, auf das Produkt, das Garn, zu übertragen. Sondern durch bloßes Zusetzen von neuem Wert erhält er den alten Wert.

↓ Since the same process (the labor process) has two results, these two results must come from two different aspects of the labor process. This kind of argument (if something has two different effects then two different aspects of it must be responsible for these two effects) was already used in 51:1.

Since, however, the addition of new value to the object of his labor, and the preservation of its former value, are two entirely different results, produced simultaneously by the laborer, during one and the same operation, it is plain that this two-fold nature of the result can be explained only by the two-fold nature of his labor; at one and the same time, it must in one character create value, and in

Da aber der Zusatz von neuem Wert zum Arbeitsgegenstand und die Erhaltung der alten Werte im Produkt zwei ganz verschiedene Resultate sind, die der Arbeiter in derselben Zeit hervorbringt, obgleich er nur einmal in derselben Zeit arbeitet, kann diese Doppelseitigkeit des Resultats offenbar nur aus der Doppelseitigkeit seiner Arbeit selbst erklärt werden. In demselben Zeitpunkt muß sie in

8. Constant Capital and Variable Capital

another character preserve or transfer value.

einer Eigenschaft Wert schaffen und in einer andren Eigenschaft Wert erhalten oder übertragen.

Question 783 *A stand-up comedian makes a joke. Part of the audience laughs, the other part gets upset. Is this a counterexample to Marx's pervasive assumption that the same mechanism cannot have two different effects?*

We already know that the labor process has a twofold character: it is abstract labor and concrete labor. Marx is indeed going to argue that it creates new value as abstract labor, and transfers value as concrete labor. This is surprising: concrete labor creates use-value, not value—how can it have an effect on value? In order to answer this, Marx first looks at the materialization of abstract labor or, as he calls it in the first edition, the addition of *labor-time* to the product.

210:1 Now, in what manner does every laborer add new labor and consequently new value? Evidently, only by laboring productively in a particular way. The spinner adds labor-time by spinning, the weaver by weaving, the smith by forging. However, by the particular useful form in which labor in general is added and therefore new value is created, by the spinning, the weaving and the forging respectively, the means of production, the cotton and spindle, the yarn and loom, and the iron and anvil become constituent elements of the product, of a new use-value.²⁰ Each use-value disappears, but only to re-appear under a new form in a new use-value.

²⁰ "Labor gives a new creation for one extinguished." ("An Essay on the Polit. Econ. of Nations," London, 1821, p. 13.)

↑ It is the concrete useful character of the labor which is responsible for turning the means of production into a new product. ↓ Now Marx refers to his detailed argument in chapter Seven, 197:2–198:2, which showed that the value of the means of production is transferred: Now, we saw, when we were considering the process of creating value, that, if a use-value be effectively consumed in the production of a new use-value, the quantity of labor expended in the production of the consumed article, forms a portion of the quantity of labor necessary to produce the new use-value; this portion is therefore labor transferred from the means of production to the new product.

↓ The concrete useful aspect of labor is therefore what is responsible for the value transfer:

214:4/o Wie setzt jeder Arbeiter Arbeitszeit und daher Wert zu? Immer nur in der Form seiner eigentümlich produktiven Arbeitsweise. Der Spinner setzt nur Arbeitszeit zu, indem er spinnt, der Weber, indem er webt, der Schmied, indem er schmiedet. Durch die zweckbestimmte Form aber, worin sie Arbeit überhaupt zusetzen und daher Neuwert, durch das Spinnen, Weben, Schmieden werden die Produktionsmittel, Baumwolle und Spindel, Garn und Webstuhl, Eisen und Amboß, zu Bildungselementen eines Produkts, eines neuen Gebrauchswerts.²⁰ Die alte Form ihres Gebrauchswerts vergeht, aber nur um in einer neuen Form von Gebrauchswert aufzugehen.

²⁰ „Arbeit ergibt eine neue Schöpfung an Stelle einer vernichteten.“ („An Essay on the Polit. Econ. of Nations“, London 1821, p. 13.)

Bei Betrachtung des Wertbildungsprozesses ergab sich aber, daß, soweit ein Gebrauchswert zweckgemäß vernutzt wird zur Produktion eines neuen Gebrauchswerts, die zur Herstellung des vernutzten Gebrauchswerts notwendige Arbeitszeit einen Teil der zur Herstellung des neuen Gebrauchswerts notwendigen Arbeitszeit bildet, also Arbeitszeit ist, die vom vernutzten Produktionsmittel auf das neue Produkt übertragen wird.

Hence, the laborer preserves the values of the consumed means of production, or transfers them as portions of its value to the product, not by virtue of his additional labor, abstractedly considered, but by virtue of the particular useful character of that labor, by virtue of its special productive form.

Since abstract labor can be materialized only in concrete form, the value transfer does not come from the abstract labor itself but from the concrete form taken by this abstract labor when it was materialized. Think of it that way: value is transferred not because the worker is sweating (i.e. using up his labor-power) but because of the worker's concrete efforts, skills, and dexterity for which he is putting his labor-power to use.

In so far then as labor is such specific productive activity, in so far as it is spinning, weaving, or forging, it raises, by mere contact, the means of production from the dead, makes them living factors of the labor-process, and combines with them to form the new products.

↑ Here is one of several places where Marx uses the metaphor that objectified abstract labor is dead labor, which is raised from the dead when the product is used as a means of production. Some modern philosophers would say that congealed abstract labor is a causally efficacious absence, and that this absence becomes a presence if the product is used as means of production. The concrete labor resurrects the abstract labor in the means of production from the dead because this concrete labor is a continuation of the labor process which produced the materials and instruments of production in its first stage and which is producing the finished product now. ↓ The next paragraph clarifies once more the contrast: while the creation of new value comes from human labor in the abstract, the transfer of value is due to the concrete labor.

210:2/o If the special productive labor of the workman were not spinning, he could not convert the cotton into yarn, and therefore could not transfer the values of the cotton and spindle to the yarn. Suppose the same workman were to change his occupation to that of a joiner, he would still by a day's labor add value to the material he works upon. Consequently, we see, first, that the addition of new value takes place not by virtue of his labor being spinning in particular, or joinering in particular, but because it is labor in the abstract, a portion of the total labor of society; and we see next, that the value added is of a given definite amount, not because his labor has a special utility, but because it is exerted for a definite time. On the one hand, then, it is by virtue of its general character, as being ex-

Der Arbeiter erhält also die Werte der ver-nutzten Produktionsmittel oder überträgt sie als Wertbestandteile auf das Produkt, nicht durch sein Zusetzen von Arbeit überhaupt, sondern durch den besondern nützlichen Charakter, durch die spezifisch produktive Form dieser zusätzlichen Arbeit.

Als solche zweckgemäße produktive Tätigkeit, Spinnen, Weben, Schmieden, erweckt die Arbeit durch ihren bloßen Kontakt die Produktionsmittel von den Toten, begeistert sie zu Faktoren des Arbeitsprozesses und verbindet sich mit ihnen zu Produkten.

215:1 Wäre die spezifische produktive Arbeit des Arbeiters nicht Spinnen, so würde er die Baumwolle nicht in Garn verwandeln, also auch die Werte von Baumwolle und Spindel nicht auf das Garn übertragen. Wechselt dagegen derselbe Arbeiter das Metier und wird Tischler, so wird er nach wie vor durch einen Arbeitstag seinem Material Wert zusetzen. Er setzt ihn also zu durch seine Arbeit, nicht soweit sie Spinnarbeit oder Tischlerarbeit, sondern soweit sie abstrakte, gesellschaftliche Arbeit überhaupt, und er setzt eine bestimmte Wertgröße zu, nicht weil seine Arbeit einen besondern nützlichen Inhalt hat, sondern weil sie eine bestimmte Zeit dauert. In ihrer abstrakten, allgemeinen Eigenschaft also, als Verausgabung menschlicher Arbeitskraft, setzt die Arbeit des Spinners den Werten

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penditure of human labor-power in the abstract, that spinning adds new value to the values of the cotton and the spindle; and on the other hand, it is by virtue of its special character, as being a concrete, useful process, that the same labor of spinning both transfers the values of the means of production to the product, and preserves them in the product. Hence at one and the same time there is produced a two-fold result.

von Baumwolle und Spindel Neuwert zu, und in ihrer konkreten, besondern, nützlichen Eigenschaft als Spinnprozeß, überträgt sie den Wert dieser Produktionsmittel auf das Produkt und erhält so ihren Wert im Produkt. Daher die Doppelseitigkeit ihres Resultats in demselben Zeitpunkt.

Question 784 Which two effects does labor have in forming the value of the product? Trace these two effects to the twofold character of labor.

Question 785 How does Marx argue that the transfer of value comes from concrete labor, not abstract labor?

↑ Until now Marx has argued for his thesis that the two outcomes of the labor process come from the two poles of the double character of labor. ↓ Now Marx assumes that this theory is correct, and shows that it matters: it is not only a theoretical exercise or “hairsplitting” but this distinction manifests itself on the surface.

211:1 By the simple addition of a certain quantity of labor, new value is added, and by the quality of this added labor, the original values of the means of production are preserved in the product. This two-fold effect, resulting from the two-fold character of labor, shows itself tangibly in various phenomena.

215:2/o Durch das bloß quantitative Zusetzen von Arbeit wird neuer Wert zuge-setzt, durch die Qualität der zugesetzten Arbeit werden die alten Werte der Produktionsmittel im Produkt erhalten. Diese doppel-seitige Wirkung derselben Arbeit infolge ihres doppel-seitigen Charakters zeigt sich handgreiflich an verschiedenen Erscheinungen.

Although Marx announces here several phenomena, he basically only brings one tangible phenomenon which shows clearly that the preservation of value must come from a substantially different aspect of labor than the creation of new value. This phenomenon is changes in productivity—either of the labor process itself or of the process which had produced the objects and instruments of labor. Such changes affect the preservation of value but not the creation of new value. (Remember that in 56:1, Marx argued that productivity is a quality of concrete useful labor.)

(a) First Marx discusses the changes in the productive power of the labor producing the finished product.

211:2 Let us assume, that some invention enables the spinner to spin as much cotton in 6 hours as he was able to spin before in 36 hours. His labor is now six times as effective as it was, for the purposes of useful production. The product of 6 hours' work has increased six-fold, from 6 lbs. to 36 lbs. But now the 36 lbs. of cotton absorb only the same amount of labor as formerly did the 6 lbs. One-sixth as much new labor is ab-

216:1 Nimm an, irgendeine Erfindung befähige den Spinner, in 6 Stunden so viel Baumwolle zu verspinnen wie früher in 36 Stunden. Als zweckmäßig nützliche, produktive Tätigkeit hat seine Arbeit ihre Kraft versechsfacht. Ihr Produkt ist ein sechsfaches, 36 statt 6 Pfund Garn. Aber die 36 Pfund Baumwolle saugen jetzt nur so viel Arbeitszeit ein als früher 6 Pfund. Sechsmal weniger neue Arbeit wird ihnen zuge-

sorbed by each pound of cotton, and consequently, the value added by the labor to each pound is only one-sixth of what it formerly was. On the other hand, in the product, in the 36 lbs. of yarn, the value transferred from the cotton is six times as great as before. By the 6 hours' spinning, the value of the raw material preserved and transferred to the product is six times as great as before, although the new value added by the labor of the spinner to each pound of the very same raw material is one-sixth what it was formerly. This shows that the two properties of labor, by virtue of which it is enabled in one case to preserve value, and in the other to create value, are essentially different. On the one hand, the longer the time necessary to spin a given weight of cotton into yarn, the greater is the new value added to the material; on the other hand, the greater the weight of the cotton spun in a given time, the greater is the value preserved, by being transferred from it to the product.

↑ If the productivity of labor doubles, the same value is still produced each hour (abstract labor), but twice the output (concrete labor). Twice the output needs twice the materials, i.e., the value transfer is doubled too. Here it shows that value transfer comes from concrete labor, not abstract labor.

(b) Now changes in the productivity of the labor producing the materials and instruments of labor:

211:3/o Let us now assume, that the productiveness of the spinner's labor, instead of varying, remains constant, that he therefore requires the same time as he formerly did, to convert one pound of cotton into yarn, but that the exchange-value of the cotton varies, either by rising to six times its former value or falling to one-sixth of that value. In both these cases, the spinner puts the same quantity of labor into a pound of cotton, and therefore adds as much value, as he did before the change in the value: he also produces a given weight of yarn in the same time as he did before. Nevertheless, the value that he transfers from the cotton to the yarn is either one-sixth of what it was before the variation, or, as the case may be, six times as much as before. The same result occurs when the value of the instruments of

setzt als mit der alten Methode, daher nur noch ein Sechstel des früheren Werts. Andererseits existiert jetzt der sechsfache Wert von Baumwolle im Produkt, den 36 Pfund Garn. In den 6 Spinnstunden wird ein sechsmal größerer Wert von Rohmaterial erhalten und auf das Produkt übertragen, obgleich demselben Rohmaterial ein sechsmal kleinerer Neuwert zugesetzt wird. Dies zeigt, wie die Eigenschaft, worin die Arbeit während desselben unteilbaren Prozesses Werte erhält, wesentlich unterschieden ist von der Eigenschaft, worin sie Wert schafft. Je mehr notwendige Arbeitszeit während der Spinnoperation auf dasselbe Quantum Baumwolle geht, desto größer der Neuwert, der der Baumwolle zugesetzt wird, aber je mehr Pfunde Baumwolle in derselben Arbeitszeit versponnen werden, desto größer der alte Wert, der im Produkt erhalten wird.

216:2 Nimm umgekehrt an, die Produktivität der Spinnarbeit bleibe unverändert, der Spinner brauche also nach wie vor gleich viel Zeit, um ein Pfund Baumwolle in Garn zu verwandeln. Aber der Tauschwert der Baumwolle selbst wechsele, ein Pfund Baumwolle steige oder falle um das Sechsfache seines Preises. In beiden Fällen fährt der Spinner fort, demselben Quantum Baumwolle dieselbe Arbeitszeit zuzusetzen, also denselben Wert, und in beiden Fällen produziert er in gleicher Zeit gleich viel Garn. Dennoch ist der Wert, den er von der Baumwolle auf das Garn, das Produkt, überträgt, das eine Mal sechsmal kleiner, das andre Mal sechsmal größer als zuvor. Ebenso wenn die Arbeitsmittel sich verteuern oder verwohlfeilern, aber stets denselben Dienst im Arbeitsprozeß leisten.

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labor rises or falls, while their useful efficacy in the process remains unaltered.

↑ The worker does not have to work harder or longer to transfer twice the value. Again this means it is not time and effort (abstract labor) but the concrete labor which is responsible for the value transfer.

Question 786 *If the material becomes more expensive, the worker may have to use a production technology which is more economical with materials. This may require more work, i.e., a higher expenditure of abstract labor. Does this refute Marx's argument that value is not transferred by abstract labor because the value transfer does not require extra work?*

(c) If one only looks at changes in the quantity produced, without technical change, then it is not apparent on the surface whether value is transferred by abstract or concrete labor:

212:1a Again, if the technical conditions of the spinning process remain unchanged, and no change of value takes place in the means of production, the spinner continues to consume in equal working-times equal quantities of raw material, and equal quantities of machinery of unvarying value. The value that he preserves in the product is directly proportional to the new value that he adds to the product. In two weeks he incorporates twice as much labor, and therefore twice as much value, as in one week, and during the same time he consumes twice as much material, and wears out twice as much machinery, of double the value in each case: he therefore preserves, in the product of two weeks, twice as much value as in the product of one week.

216:3/o Bleiben die technischen Bedingungen des Spinnprozesses unverändert und geht gleichfalls kein Wertwechsel mit seinen Produktionsmitteln vor, so verbraucht der Spinner nach wie vor in gleichen Arbeitszeiten gleiche Quanta Rohmaterial und Maschinerie von gleichbleibenden Werten. Der Wert, den er im Produkt erhält, steht dann in direktem Verhältnis zu dem Neuwert, den er zusetzt. In zwei Wochen setzt er zweimal mehr Arbeit zu als in einer Woche, also zweimal mehr Wert, und zugleich verwendet er zweimal mehr Material von zweimal mehr Wert, und verschleißt zweimal mehr Maschinerie von zweimal mehr Wert, erhält also im Produkt von zwei Wochen zweimal mehr Wert als im Produkt einer Woche.

Since the doubling of time both doubled the value newly created and the value transferred, one might think that they both have the same source, namely, human labor in the abstract (which is measured by time). But this appearance is misleading. The preservation of old value and the creation of new value are proportional to each other not because they depend on each other but because both are proportional to time.

So long as the conditions of production remain the same, the more value the laborer adds by fresh labor, the more value he transfers and preserves; but he does so merely because this addition of new value takes place under conditions that have not varied and are independent of his own labor.

Unter gegebenen gleichbleibenden Produktionsbedingungen erhält der Arbeiter um so mehr Wert, je mehr Wert er zusetzt, aber er erhält nicht mehr Wert, weil er mehr Wert zusetzt, sondern weil er ihn unter gleichbleibenden und von seiner eignen Arbeit unabhängigen Bedingungen zusetzt.

This last example can be generalized. Even if productivity varies, twice as much value is transferred in two hours than in one hour. I.e., variations in output will not reveal whether the value is transferred by abstract or by concrete labor.

212:1b Of course, it may be said in one sense, that the laborer preserves old value

217:1 Allerdings kann in einem relativen Sinn gesagt werden, daß der Arbeiter stets

always in proportion to the quantity of new value that he adds. Whether the value of cotton rise from one shilling to two shillings, or fall to sixpence, the workman invariably preserves in the product of one hour only one half as much value as he preserves in two hours. In like manner, if the productiveness of his own labor varies by rising or falling, he will in one hour spin either more or less cotton, as the case may be, than he did before, and will consequently preserve in the product of one hour, more or less value of cotton; but, all the same, he will preserve by two hours' labor twice as much value as he will by one.

in derselben Proportion alte Werte erhält, worin er Neuwert zusetzt. Ob die Baumwolle von 1 sh. auf 2 sh. steige oder auf 6 d. falle, er erhält in dem Produkt einer Stunde stets nur halb soviel Baumwollwert, wie der auch wechsle, als in dem Produkt von zwei Stunden. Wechselt ferner die Produktivität seiner eignen Arbeit, sie steige oder falle, so wird er z.B. in einer Arbeitsstunde mehr oder weniger Baumwolle verspinnen als früher, und dementsprechend mehr oder weniger Baumwollwert im Produkt einer Arbeitsstunde erhalten. Mit alledem wird er in zwei Arbeitsstunden zweimal mehr Wert erhalten als in einer Arbeitsstunde.

Question 787 *Is productivity a property of concrete useful or of general abstract labor? Does a change in productivity affect this creation of value or the transfer of value?*

8.1.b. [Role of Means of Production]

Since the labor transfers the value of the means of production, the means of production in the production process do not lose their value when they are used up but this value is preserved, it migrates into the end product. Again Marx does not take this as an axiom to make the labor theory of value consistent, but he asks in detail how this migration is accomplished. ↓ Marx begins with the basic fact that an object can have value only if it has use-value.

212:2/o Value exists only in articles of utility, in objects, if we leave out of consideration its purely symbolical representation by tokens. (Man himself, viewed as the mere impersonation of labor-power, is a natural object, a thing, although a living conscious thing, and labor is the manifestation of this power residing in him.) If therefore an article loses its utility, it also loses its value.

217:2 Wert, von seiner nur symbolischen Darstellung im Wertzeichen abgesehen, existiert nur in einem Gebrauchswert, einem Ding. (Der Mensch selbst, als bloßes Dasein von Arbeitskraft betrachtet, ist ein Naturgegenstand, ein Ding, wenn auch lebendiges, selbstbewußtes Ding, und die Arbeit selbst ist dingliche Äußerung jener Kraft.) Geht daher der Gebrauchswert verloren, so geht auch der Wert verloren.

↑ This is true for commodities in general: if an article loses its use-value, then it also loses its value. ↓ In the production process, the means of production are used up, i.e., they lose their use-value. Therefore one should expect that their value is lost as well. But this is not what is happening: this value is not lost but preserved.

The reason why means of production do not lose their value, at the same time that they lose their use-value, is this: they lose in the labor-process the original form of their use-value, only to assume in the product the form of a new use-value.

Die Produktionsmittel verlieren mit ihrem Gebrauchswert nicht zugleich ihren Wert, weil sie durch den Arbeitsprozeß die ursprüngliche Gestalt ihres Gebrauchswerts in der Tat nur verlieren, um im Produkt die Gestalt eines andren Gebrauchswerts zu gewinnen.

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↑ Why is the value not lost but preserved? Because the use-value of the means of production is not lost unproductively: it is lost in order to shape the use-value of the product. ↓ Marx applies here the flip side of the basic fact about value which was his point of departure: although it is imperative for value to exist in a use-value, value is entirely indifferent about it which use-value it exists in.

But, however important it may be to value, that it should have some object of utility to embody itself in, yet it is a matter of complete indifference what particular object serves this purpose; this we saw when treating of the metamorphosis of commodities.

So wichtig es aber für den Wert ist, in irgendeinem Gebrauchswert zu existieren, so gleichgültig ist es, in welchem er existiert, wie die Metamorphose der Waren zeigt.

↑ In production, therefore, the value is transferred from the means of production to the end product. ↓ However, (and this can be considered the negation of the negation), a condition for this transfer of value to the product is that the means of production lose their values.

Hence it follows that in the labor-process the means of production transfer their value to the product only so far as along with their use-value they lose also their exchange-value. They give up to the product that value alone which they themselves lose as means of production.

Es folgt hieraus, daß im Arbeitsprozeß Wert vom Produktionsmittel auf das Produkt nur übergeht, soweit das Produktionsmittel mit seinem selbständigen Gebrauchswert auch seinen Tauschwert verliert. Es gibt nur den Wert an das Produkt ab, den es als Produktionsmittel verliert.

Question 788 *If something does not lose use-value through its use (maybe a computer program), does this mean it does not add value to the product?*

↓ The following big issue must be discussed now in more detail: the value loss of the raw materials and auxiliary materials is different than that of the instruments of labor.

But in this respect the material factors of the labor process do not all behave alike.

Die gegenständlichen Faktoren des Arbeitsprozesses verhalten sich aber in dieser Hinsicht verschieden.

Question 789 *Why does a machine which lasts 5 years of production lose 1/5 of its value in the first year? What happens if the machine stands idle?*

↓ In order to develop these differences Marx first traces the transfer of the *use-values* in the production process before discussion the transfer of *values*:

213:1/o The coal burnt under the boiler vanishes without leaving a trace; so, too, the tallow with which the axles of wheels are greased. Dye stuffs and other auxiliary substances also vanish but manifest themselves as properties of the product. Raw material constitutes the substance of the product, but it has changed its form.

217:3/o Die Kohle, womit die Maschine geheizt wird, verschwindet spurlos, ebenso das Öl, womit man die Achse des Rades schmirt usw. Farbe und andre Hilfsstoffe verschwinden, zeigen sich aber in den Eigenschaften des Produkts. Das Rohmaterial bildet die Substanz des Produkts, hat aber seine Form verändert.

↑ Marx is wrong to say that the coal “disappears without a trace.” It leaves more CO₂ behind than its own weight, but this CO₂ cannot be seen. And the sulfur and mercury pollutants are coming back to haunt us: in the long run, they are not dispersed but they bioaccumulate. ↓ Already regarding use-values there is an important difference. The object of

labor loses its characteristic form in the production process, while the instruments preserve their form.

Hence raw material and auxiliary substances lose the characteristic form with which they are clothed on entering the labor-process. It is otherwise with the instruments of labor. Tools, machines, workshops, and vessels, are of use in the labor-process, only so long as they retain their original shape, and are ready each morning to renew the process with their shape unchanged. And just as during their lifetime, that is to say, during the continued labor-process in which they serve, they retain their shape independent of the product, so, too, they do after their death. The corpses of machines, tools, workshops, etc., are always separate and distinct from the product they helped to turn out.

Rohmaterial und Hilfsstoffe verlieren also die selbständige Gestalt, womit sie in den Arbeitsprozeß als Gebrauchswerte eintreten. Anders mit den eigentlichen Arbeitsmitteln. Ein Instrument, eine Maschine, ein Fabrikgebäude, ein Gefäß usw. dienen im Arbeitsprozeß nur, solange sie ihre ursprüngliche Gestalt bewahren und morgen wieder in ebenderselben Form in den Arbeitsprozeß eingehn wie gestern. Wie sie während ihres Lebens, des Arbeitsprozesses, ihre selbständige Gestalt dem Produkt gegenüber bewahren, so auch nach ihrem Tode. Die Leichen von Maschinen, Werkzeugen, Arbeitsgebäuden usw. existieren immer noch getrennt von den Produkten, die sie bilden halfen.

↓ The period of time in which the instruments of labor lose their entire use-values is also that in which they transfer their entire exchange-values to the end product.

If we now consider the case of any instrument of labor during the whole period of its service, from the day of its entry into the workshop, till the day of its banishment into the lumber room, we find that during this period its use-value has been completely consumed, and therefore its exchange-value completely transferred to the product. For instance, if a spinning machine lasts for 10 years, it is plain that during that working period its total value is gradually transferred to the product of the 10 years.

Betrachten wir nun die ganze Periode, während deren ein solches Arbeitsmittel dient, von dem Tag seines Eintritts in die Werkstätte bis zum Tage seiner Verbannung in die Rumpelkammer, so ist während dieser Periode sein Gebrauchswert von der Arbeit vollständig verzehrt worden und sein Tauschwert daher vollständig auf das Produkt übergegangen. Hat eine Spinnmaschine z.B. in 10 Jahren ausgelebt, so ist während des zehnjährigen Arbeitsprozesses ihr Gesamtwert auf das zehnjährige Produkt übergegangen.

↓ The problem is now that this value transfer is spread out over many production periods, and one does not know how much value is transferred in an individual day. For this, an average calculation is necessary.

The lifetime of an instrument of labor, therefore, is spent in the repetition of a greater or less number of similar operations. Its life may be compared with that of a human being. Every day brings a man 24 hours nearer to his grave: but how many days he has still to travel on that road, no man can tell accurately by merely looking at him. This difficulty, however, does not prevent life insurance offices from drawing, by means of the

Die Lebensperiode eines Arbeitsmittels umfaßt also eine größere oder kleinere Anzahl stets von neuem mit ihm wiederholter Arbeitsprozesse. Und es geht dem Arbeitsmittel wie dem Menschen. Jeder Mensch stirbt täglich um 24 Stunden ab. Man sieht aber keinem Menschen genau an, wieviel Tage er bereits verstorben ist. Dies verhindert Lebensversicherungsgesellschaften jedoch nicht, aus dem Durchschnittsleben der

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theory of averages, very accurate, and at the same time very profitable conclusions. So it is with the instruments of labor. It is known by experience how long on the average a machine of a particular kind will last.

Menschen sehr sichere, und was noch viel mehr ist, sehr profitliche Schlüsse zu ziehn. So mit dem Arbeitsmittel. Man weiß aus der Erfahrung, wie lang ein Arbeitsmittel, z.B. eine Maschine von gewisser Art, durchschnittlich vorhält.

↓ The paragraph concludes with a numerical example.

Suppose its use-value in the labor-process to last only six days. Then, on the average, it loses each day one-sixth of its use-value, and therefore parts with one-sixth of its value to the daily product. The wear and tear of all instruments, their daily loss of use-value, and the corresponding quantity of value they part with to the product, are accordingly calculated upon this basis.

Gesetzt, sein Gebrauchswert im Arbeitsprozeß daure nur 6 Tage. So verliert es im Durchschnitt jeden Arbeitstag $\frac{1}{6}$ seines Gebrauchswerts und gibt daher $\frac{1}{6}$ seines Werts an das tägliche Produkt ab. In dieser Art wird der Verschleiß aller Arbeitsmittel berechnet, also z.B. ihr täglicher Verlust an Gebrauchswert und ihr entsprechende tägliche Wertabgabe an das Produkt.

Question 790 *Do the means of production lose value because they transfer it to the end product, or do they transfer value to the end product because they lose value in the production process?*

Question 791 *Show how the value of a product, e.g. of 10 lbs of yarn, can be calculated. (I should give a list with what is needed to produce it.)*

After having established how this value transfer is achieved, Marx discusses several implications of this:

↓ Since value transfer comes from value loss, it follows that no means of production can transfer more value than it contains. Applied to means of production which do not cost labor this means: they do not transfer any value.

214:1 It is thus strikingly clear, that means of production never transfer more value to the product than they themselves lose during the labor-process by the destruction of their own use-value. If such an instrument has no value to lose, if, in other words, it is not the product of human labor, it transfers no value to the product. It helps to create use-value without contributing to the formation of exchange-value. In this class are included all means of production supplied by Nature without human assistance, such as land, wind, water, metals in situ, and timber in virgin forests.

218:1 Es zeigt sich so schlagend, daß ein Produktionsmittel nie mehr Wert an das Produkt abgibt, als es im Arbeitsprozeß durch Vernichtung seines eignen Gebrauchswerts verliert. Hätte es keinen Wert zu verlieren, d.h. wäre es nicht selbst Produkt menschlicher Arbeit, so würde es keinen Wert an das Produkt abgeben. Es diene als Bildner von Gebrauchswert, ohne als Bildner von Tauschwert zu dienen. Dies ist daher der Fall mit allen Produktionsmitteln, die von Natur, ohne menschliches Zutun, vorhanden sind, mit Erde, Wind, Wasser, dem Eisen in der Erzader, dem Holze des Urwaldes usw.

Machines and tools enter the labor process in their entirety, but they enter the process of creating value and surplus-value only in small increments:

214:2 Yet another interesting phenomenon here presents itself. Suppose a machine to be worth £1,000, and to wear out in 1,000

219:1 Ein andres interessantes Phänomen tritt uns hier entgegen. Eine Maschine sei z.B. 1000 Pfd.St. wert und schlei-

days. Then one thousandth part of the value of the machine is daily transferred to the day's product. At the same time, though with diminishing vitality, the machine as a whole continues to take part in the labor-process. Thus it appears, that one factor of the labor-process, a means of production, continually enters as a whole into that process, while it enters into the process of the formation of value by fractions only. The difference between the two processes is here reflected in their material factors, by the same instrument of production taking part as a whole in the labor-process, while at the same time as an element in the formation of value, it enters only by fractions.²¹

Footnote 21 makes two unrelated remarks. (a) First it talks about repair labor:

²¹ The subject of repairs of the implements of labor does not concern us here. A machine that is undergoing repair, no longer plays the part of an instrument, but that of a object of labor. Work is no longer done with it, but upon it. It is quite permissible for our purpose to assume, that the labor expended on the repairs of instruments is included in the labor necessary for their original production. But in the text we deal with that wear and tear, which no doctor can cure, and which little by little brings about death, with "that kind of wear which cannot be repaired from time to time, and which, in the case of a knife, would ultimately reduce it to a state in which the cutler would say of it, it is not worth a new blade."

ße sich in 1000 Tagen ab. In diesem Fall geht täglich 1/1000 des Werts der Maschine von ihr selbst auf ihr tägliches Produkt über. Zugleich, wenn auch mit abnehmender Lebenskraft, wirkt stets die Gesamtmaschine im Arbeitsprozeß. Es zeigt sich also, daß ein Faktor des Arbeitsprozesses, ein Produktionsmittel, ganz in den Arbeitsprozeß, aber nur zum Teil in den Verwertungsprozeß eingeht. Der Unterschied von Arbeitsprozeß und Verwertungsprozeß reflektiert sich hier an ihren gegenständlichen Faktoren, indem dasselbe Produktionsmittel als Element des Arbeitsprozesses ganz und als Element der Wertbildung nur stückweis in demselben Produktionsprozeß zählt.²¹

²¹ Es handelt sich hier nicht um Reparaturen der Arbeitsmittel, Maschinen, Baulichkeiten usw. Eine Maschine, die repariert wird, funktioniert nicht als Arbeitsmittel sondern als Arbeitsmaterial. Es wird nicht mit ihr gearbeitet, sondern sie selbst wird bearbeitet, um ihren Gebrauchswert zu flicken. Solche Reparaturarbeiten kann man für unsren Zweck immer eingeschlossen denken in die zur Produktion des Arbeitsmittels erheischte Arbeit. Im Text handelt es sich um den Verschleiß, den kein Doktor kurieren kann und der allmählich den Tod herbeiführt, um „jene Art der Abnutzung, die nicht von Zeit zu Zeit ersetzt werden kann und die beispielsweise ein Messer schließlich in einen solchen Zustand versetzt, daß der Messerschmied sagt, es sei keine neue Klinge mehr wert“.

The second half of the footnote criticizes the lack of distinction in the literature between the labor process and the process of creating value.

^{21 ctd} We have shewn in the text, that a machine takes part in every labor-process as an integral machine, but that into the simultaneous process of creating value it enters only bit by bit. How great then is the confusion of ideas exhibited in the following extract! "Mr. Ricardo says a portion of the labor of the engineer in making [stocking] machines" is contained for example in the value of a pair of stockings. "Yet the total labor, that produced each single pair of stockings ... includes the whole labor of the engineer, not a portion; for one machine makes many pairs, and none of those pairs could have been done without any part of the machine." ("Obs. on Cer-

^{21 ctd} Man hat im Text gesehn, daß eine Maschine z.B. ganz in jeden einzelnen Arbeitsprozeß, aber nur stückweis in den gleichzeitigen Verwertungsprozeß eingeht. Danach zu beurteilen die folgende Begriffsverwechslung: „Ricardo spricht von dem Anteil der beim Bau einer Strumpfwirkmaschine verausgabten Arbeitsmenge eines Maschinenbauers“ als z.B. enthalten in dem Wert von ein paar Strümpfen. „Jedoch die ganze Arbeit, die jedes einzelne Paar Strümpfe hergestellt hat ... schließt die ganze Arbeit des Maschinenbauers ein und nicht nur einen Teil; denn eine Maschine macht zwar viele Paare, aber keines dieser Paare hätte unter Verzicht auf ir-

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tain Verbal Disputes in Pol. Econ., Particularly Relating to Value,” p. 54.) The author, an uncommonly self-satisfied wiseacre, is right in his confusion and therefore in his contention, to this extent only, that neither Ricardo nor any other economist, before or since him, has accurately distinguished the two aspects of labor, and still less, therefore, the part played by it under each of these aspects in the formation of value.

gendeinen Teil der Maschine angefertigt werden können.“ („Observations on certain verbal disputes in Pol. Econ., particularly relating to Value, and to Demand and Supply“, London 1821, p. 54.) Der Verfasser, ein ungemein selbstgefälliger „wiseacre“, hat mit seiner Konfusion und daher mit seiner Polemik nur so weit recht, als weder Ricardo noch irgendein anderer Ökonom, vor oder nach ihm, die beiden Seiten der Arbeit genau geschieden, daher noch weniger ihre verschiedene Rolle in der Wertbildung analysiert hat.

The text of the footnote in the German MEW 23 edition is subject to a translation error, als passages which were in the original 4th edition in English were translated into German. The sentence in MEW is, wrongly: „Ricardo spricht von der beim Bau einer Strumpfwirkmaschine

verausgabten Arbeitsmenge eines Maschinenbauers“, als z.B. enthalten in dem Wert von ein paar Strümpfen. The original formulation in footnote 21 to [megaII/10]185:1 is: „Mr. Ricardo speaks of the portion of the labour of the engineer in making stocking machines“ als z.B. enthalten in

dem Wert von ein paar Strümpfen. Note that there is no comma in this sentence. The above-given German version tries to translate the English portion of this sentence more accurately than MEW.

⇓ The discrepancy can also go the other way: some means of production enter the labor process only in part but the valorization process in their entirety.

219:1 On the other hand, a means of production may take part as a whole in the formation of value, while into the labor-process it enters only bit by bit. Suppose that in spinning cotton, the waste for every 115 lbs. used amounts to 15 lbs., which is converted, not into yarn, but into “devil’s dust.” Now, although this 15 lbs. of cotton never becomes a constituent element of the yarn, yet assuming this amount of waste to be normal and inevitable under average conditions of spinning, its value is just as surely transferred to the value of the yarn, as is the value of the 100 lbs. that form the substance of the yarn. The use-value of 15 lbs. of cotton must vanish into dust, before 100 lbs. of yarn can be made. The destruction of this cotton is therefore a necessary condition in the production of the yarn. And because it is a necessary condition, and for no other reason, the value of that cotton is transferred to the product. The same holds good for every kind of refuse resulting from a labor-process, so far at least as such refuse cannot be further employed as a means in the production of new and independent use-values.

219:2/o Andererseits kann umgekehrt ein Produktionsmittel ganz in den Verwertungsprozeß eingehn, obgleich nur stückweis in den Arbeitsprozeß. Nimm an, beim Verspinnen der Baumwolle fielen täglich auf 115 Pfund 15 Pfund ab, die kein Garn, sondern nur devil’s dust bilden. Dennoch, wenn dieser Abfall von 15 Pfund normal, von der Durchschnittsverarbeitung der Baumwolle unzertrennlich ist, geht der Wert der 15 Pfund Baumwolle, die kein Element des Garns, ganz ebensosehr in den Garnwert ein, wie der Wert der 100 Pfund, die seine Substanz bilden. Der Gebrauchswert von 15 Pfund Baumwolle muß verstauben, um 100 Pfund Garn zu machen. Der Untergang dieser Baumwolle ist also eine Produktionsbedingung des Garns. Ebendeswegen gibt sie ihren Wert an das Garn ab. Dies gilt von allen Exkrementen des Arbeitsprozesses, in dem Grad wenigstens, worin diese Exkremente nicht wieder neue Produktionsmittel und daher neue selbständige Gebrauchswerte bilden. So sieht man in den großen Maschinenfabriken zu Manchester Berge von Eisenabfällen, durch zyklische Ma-

Such an employment of refuse may be seen in the large machine works at Manchester, where mountains of iron turnings are carted away to the foundry in the evening, in order the next morning to re-appear in the workshops as solid masses of iron.

↓ A brief mention of joint production, without answering the question how the value of the end products is determined in this case.

215:2/o We have seen that the means of production transfer value to the new product, so far only as during the labor-process they lose value in the shape of their old use-value. The maximum loss of value that they can suffer in the process, is plainly limited by the amount of the original value with which they came into the process, or in other words, by the labor-time necessary for their production. Therefore, the means of production can never add more value to the product than they themselves possess independently of the process in which they assist. However useful a given kind of raw material, or a machine, or other means of production may be, though it may cost £150, or, say, 500 days' labor, yet it cannot, under any circumstances, add to the value of the product more than £150. Its value is determined not by the labor-process into which it enters as a means of production, but by that out of which it has issued as a product. In the labor-process it only serves as a mere use-value, a thing with useful properties, and could not, therefore, transfer any value to the product, unless it possessed such value previously.²²

²² From this we may judge of the absurdity of J. B. Say, who pretends to account for surplus-value (Interest, Profit, Rent), by the "services productifs" which the means of production, soil, instruments, and raw material, render in the labor-process by means of their use-values. Mr. Wm. Roscher who seldom loses an occasion of registering, in black and white, ingenious apologetic fancies, records the following specimen:—"J. B. Say (Traité, t. 1, ch. 4) very truly remarks: the value produced by an oil mill, after deduction of all costs, is something new, something quite different from the labor by

schinen gleich Hobelspänen abgeschält, am Abend auf großen Wagen aus der Fabrik in die Eisengießerei wandern, um den andren Tag wieder als massives Eisen aus der Eisengießerei in die Fabrik zurückzuwandern.

220:1 Nur soweit Produktionsmittel während des Arbeitsprozesses Wert in der Gestalt ihrer alten Gebrauchswerte verlieren, übertragen sie Wert auf die neue Gestalt des Produkts. Das Maximum des Wertverlustes, den sie im Arbeitsprozeß erleiden können, ist offenbar beschränkt durch die ursprüngliche Wertgröße, womit sie in den Arbeitsprozeß eintreten, oder durch die zu ihrer eigenen Produktion erheischte Arbeitszeit. Produktionsmittel können dem Produkt daher nie mehr Wert zusetzen, als sie unabhängig vom Arbeitsprozeß, dem sie dienen, besitzen. Wie nützlich auch ein Arbeitsmaterial, eine Maschine, ein Produktionsmittel: wenn es 150 Pfd.St., sage 500 Arbeitstage, kostet, setzt es dem Gesamtprodukt, zu dessen Bildung es dient, nie mehr als 150 Pfd.St. zu. Sein Wert ist bestimmt nicht durch den Arbeitsprozeß, worin es als Produktionsmittel eingeht, sondern durch den Arbeitsprozeß, woraus es als Produkt herauskommt. In dem Arbeitsprozeß dient es nur als Gebrauchswert, als Ding mit nützlichen Eigenschaften, und gäbe daher keinen Wert an das Produkt ab, hätte es nicht Wert besessen vor seinem Eintritt in den Prozeß.²²

²² Man begreift daher die Abgeschmacktheit des faden J. B. Say, der den Mehrwert (Zins, Profit, Rente) aus den „services productifs“ ableiten will, welche die Produktionsmittel, Erde, Instrumente, Leder usw., durch ihre Gebrauchswerte im Arbeitsprozesse leisten. Herr Wilhelm Roscher, der es nicht leicht läßt, artige apologetische Einfälle schwarz auf weiß zu registrieren, ruft aus: „Sehr richtig bemerkt J. B. Say, „Traité“, t. I, ch. 4: der durch eine Ölmühle nach Abzug aller Kosten hervorgebrachte Wert sei doch etwas Neues, von der Arbeit, wodurch die Ölmühle selbst geschaffen worden, wesentlich Verschied-

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which the oil mill itself was erected.” (l.c., p. 82, note.) Very true, Mr. Professor! the oil produced by the oil mill is indeed something very different from the labor expended in constructing the mill! By value, Mr. Roscher understands such stuff as “oil,” because oil has value, notwithstanding that “Nature” produces petroleum, though relatively “in small quantities,” a fact to which he seems to refer in his further observation: “It (Nature) produces scarcely any exchange-value.” Mr. Roscher’s “Nature” and the exchange-value it produces are rather like the foolish virgin who admitted indeed that she had had a child, but “it was such a little one.” This “savant sérieux” in continuation remarks: “Ricardo’s school is in the habit of including capital as accumulated labor under the head of labor. This is unskilful work (!), because (!), indeed (!), the owner of capital (!), after all (!), had done something more (!) than the mere (!) creation (?) and (??) preservation of the same (which same?): namely (!?), the abstention from the enjoyment of it, for which he demands, e.g. (!!!), interest.” (l.c.)

nes.“ (l.c. p. 82, Note.) Sehr richtig! Das von der Ölmühle hervorgebrachte „Öl“ ist etwas sehr Verschiedenes von der Arbeit, welche der Bau der Mühle kostet. Und unter „Wert“ versteht Herr Roscher solches Zeug wie „Öl“, da „Öl“ Wert hat, „in der Natur“ aber sich Steinöl vorfindet, wenn auch relativ nicht „sehr viel“, worauf wohl seine andre Bemerkung abzielt: „Tauschwerte bringt sie“ (die Natur!) „fast gar nicht hervor.“ [l.c. p. 79.] Es geht der Roscherschen Natur mit dem Tauschwert wie der törichten Jungfrau mit dem Kind, das nur „ganz klein war“. Derselbe „Gelehrte“ („savant sérieux“) bemerkt noch bei oben erwähnter Gelegenheit: „Die Schule Ricardos pflegt auch das Kapital unter den Begriff Arbeit zu subsumieren als ‚aufgesparte Arbeit‘. Dies ist ungeschickt (!), weil (!) ja (!) der Kapitalbesitzer (!) doch (!) mehr (!) getan hat als die bloße (?) Hervorbringung (?) und (??) Erhaltung desselben (wesselbigen?): eben (!?) die Enthaltung vom eignen Genuß, wofür er z.B. (!!!) Zinsen verlangt.“ (l.c. [p. 82.]

Question 792 Explain each of the question marks and exclamation points inserted by Marx into the Say quote.

How very “skilful” is this “anatomico-physiological method” of Political Economy, which, “indeed,” converts a mere desire “after all” into a source of value.

Wie „geschickt“! diese „anatomisch-physiologische Methode“ der politischen Ökonomie, die aus bloßem „Verlangen“ ja doch eben „Wert“ entwickelt.

↑ This last sentence of the footnote is a critique of the utility theory of value.

8.2. [Creation of Surplus-Value]

Marx begins his discussion of the creation of surplus-value with the transfer of value from the means of production, stressing that it happens behind the worker’s back, i.e., the worker does not have to work extra to transfer the value but it is part of the process creating the product.

216:1/o While productive labor is changing the means of production into constituent elements of a new product, their value undergoes a transmigration of souls. It deserts the consumed body, to occupy the newly created one. But this transmigration takes place, as it were, behind the back of the laborer. He is unable to add new labor, to create new value, without at the same time preserving old values, and this, because the la-

221:1 Indem die produktive Arbeit Produktionsmittel in Bildungselemente eines neuen Produkts verwandelt, geht mit deren Wert eine Seelenwandlung vor. Er geht aus dem verzehrten Leib in den neu gestalteten Leib über. Aber diese Seelenwandlung ereignet sich gleichsam hinter dem Rücken der wirklichen Arbeit. Der Arbeiter kann neue Arbeit nicht zusetzen, also nicht neuen Wert schaffen, ohne alte Werte zu erhalten,

bor he adds must be of a specific useful kind; and he cannot do work of a useful kind, without employing products as the means of production of a new product, and thereby transferring their value to the new product. The property therefore which labor-power in action, living labor, possesses of preserving value, at the same time that it adds it, is a gift of nature which costs the laborer nothing, but which is very advantageous to the capitalist inasmuch as it preserves the existing value of his capital.^{22a}

↑ Now Marx also mentions the capitalist, who was absent in the first half of the chapter when Marx only talked about the creation of value, not surplus-value.

Question 793 *Does this mean creation of value comes only from the laborer and creation of surplus-value comes only from the capitalist?*

Question 794 *Why does Marx call the preservation of value an effect of labor which takes place “behind its back”?*

^{22a} “Of all the instruments of the farmers’ trade, the labor of man ... is that on which he is most to rely for the repayment of his capital. The other two ... the working stock of the cattle and the ... carts, ploughs, spades, and so forth, without a given portion of the first, are nothing at all.” (Edmund Burke: “Thoughts and Details on Scarcity, originally presented to the Right Hon. W. Pitt, in the month of November 1795,” Edit. London, 1800, p. 10.)

↓ These benefits are only visible when they are interrupted:

Solange das Geschäft flott geht, ist der Kapitalist zu sehr in die Plusmacherei vertieft, um diese Gratisgabe der Arbeit zu sehn. Gewaltsame Unterbrechungen des Arbeitsprozesses, Krisen, machen sie ihm empfindlich bemerkbar.²³

²³ In *The Times* of 26th November, 1862, a manufacturer, whose mill employed 800 hands, and consumed, on the average, 150 bales of East Indian, or 130 bales of American cotton, complains, in doleful manner, of the standing expenses of his factory when not working. He estimates them at £6,000 a year. Among them are a number of items that do not concern us here, such as rent, rates, and taxes, insurance, salaries of the manager, book-keeper, engineer, and others. Then he reckons £150 for coal used to heat the mill occasionally, and run the engine now

denn er muß die Arbeit immer in bestimmter nützlicher Form zusetzen, und er kann sie nicht in nützlicher Form zusetzen, ohne Produkte zu Produktionsmitteln eines neuen Produkts zu machen und dadurch ihren Wert auf das neue Produkt zu übertragen. Es ist also eine Naturgabe der sich betätigenden Arbeitskraft, der lebendigen Arbeit, Wert zu erhalten, indem sie Wert zusetzt, eine Naturgabe, die dem Arbeiter nichts kostet, aber dem Kapitalisten viel einbringt, die Erhaltung des vorhandenen Kapitalwerts.^{22a}

^{22a} „Von allen Hilfsmitteln in der Landwirtschaft ist die Arbeit des Menschen ... dasjenige, auf das der Farmer am meisten zum Ersatz seines Kapitals angewiesen ist. Die beiden anderen—der Bestand an Arbeitsvieh und die ... Karren, Pflüge, Spaten usw.—sind gar nichts ohne eine gewisse Menge des ersten.“ (Edmund Burke, „Thoughts and Details on Scarcity, originally presented to the Rt. Hon. W. Pitt in the Month of November 1795“, edit. London 1800, p. 10.)

Solange das Geschäft flott geht, ist der Kapitalist zu sehr in die Plusmacherei vertieft, um diese Gratisgabe der Arbeit zu sehn. Gewaltsame Unterbrechungen des Arbeitsprozesses, Krisen, machen sie ihm empfindlich bemerkbar.²³

²³ In der „Times“ vom 26. Nov. 1862 jamert ein Fabrikant, dessen Spinnerei 800 Arbeiter beschäftigt und wöchentlich im Durchschnitt 150 Ballen ostindischer oder ungefähr 130 Ballen amerikanischer Baumwolle verzehrt, dem Publikum die jährlichen Stillstandskosten seiner Fabrik vor. Er schlägt sie auf 6000 Pfd.St. an. Unter diesen Unkosten befinden sich viele Posten, die uns hier nichts angehn, wie Grundrente, Steuern, Versicherungsprämien, Salaire für jährlich engagierte Arbeiter, Manager, Buchhalter, Ingenieur usw. Dann aber berechnet er für

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and then. Besides this, he includes the wages of the people employed at odd times to keep the machinery in working order. Lastly, he puts down £1,200 for depreciation of machinery, because “the weather and the natural principle of decay do not suspend their operations because the steam-engine ceases to revolve.” He says, emphatically, he does not estimate his depreciation at more than the small sum of £1,200, because his machinery is already nearly worn out.

150 Pfd.St. Kohlen, um die Fabrik von Zeit zu Zeit zu wärmen und die Dampfmaschine gelegentlich in Gang zu setzen, außerdem Löhne für Arbeiter, die durch gelegentliche Arbeit die Maschinerie „flüssig“ erhalten. Endlich 1200 Pfd. St. für Verschlechterung der Maschinerie, da „das Wetter und die natürlichen Ursachen des Verfalls ihr Wirken nicht deshalb einstellen, weil die Dampfmaschine aufhört, sich zu drehen“. Er bemerkt ausdrücklich, diese Summe von 1200 Pfd. St. sei so gering angeschlagen, weil sich die Maschinerie bereits in sehr abgenutztem Zustande befinde.

The value of the means of production is not destroyed and then reproduced, but it is preserved. (Marx stresses this here because this is not true for the value labor-power.)

217:1/o As regards the means of production, what is really consumed is their use-value, and the consumption of this use-value by labor results in the product. There is no consumption of their value,²⁴ and it would therefore be inaccurate to say that it is reproduced. It is rather preserved; not by reason of any operation it undergoes itself in the process; but because the article in which it originally exists, vanishes, it is true, but vanishes into some other article. Hence, in the value of the product, there is a reappearance of the value of the means of production, but there is, strictly speaking, no reproduction of that value. That which is produced is a new use-value in which the old exchange-value reappears.²⁵

²⁴ “Productive consumption . . . where the consumption of a commodity is a part of the process of production . . . In these instances there is no consumption of value.” (S. P. Newman, l.c., p. 296.)

222:1 Was überhaupt an den Produktionsmitteln verzehrt wird, ist ihr Gebrauchswert, durch dessen Konsumtion die Arbeit Produkte bildet. Ihr Wert wird in der Tat nicht konsumiert,²⁴ kann also auch nicht reproduziert werden. Er wird erhalten, aber nicht weil eine Operation mit ihm selbst im Arbeitsprozeß vorgeht, sondern weil der Gebrauchswert, worin er ursprünglich existiert, zwar verschwindet, aber nur in einem andren Gebrauchswert verschwindet. Der Wert der Produktionsmittel erscheint daher wieder im Wert des Produkts, aber er wird, genau gesprochen, nicht reproduziert. Was produziert wird, ist der neue Gebrauchswert, worin der alte Tauschwert wieder erscheint.²⁵

²⁴ „Produktive Konsumtion: wo die Konsumtion einer Ware Teil des Produktionsprozesses ist . . . In diesen Fällen findet keine Konsumtion von Wert statt.“ (S. P. Newman, l.c. p. 296.)

Footnote 25 already makes the transition to the next topic, what happens to the value of labor-power:

²⁵ In an American compendium that has gone through, perhaps, 20 editions, this passage occurs: “It matters not in what form capital reappears;” then after a lengthy enumeration of all the possible ingredients of production whose value re-appears in the product, the passage concludes thus: “The various kinds of food, clothing, and shelter, necessary for the existence and comfort of the human being, are also changed. They are consumed from time to time, and their

²⁵ In einem nordamerikanischen Kompendium, das vielleicht 20 Auflagen erlebt hat, liest man: „Es ist nicht von Bedeutung, in welcher Form das Kapital wiedererscheint.“ Nach einer redseligen Aufzählung aller möglichen Produktionsingredienzien, deren Wert im Produkt wiedererscheint, heißt’s schließlich: „Die verschiedenen Arten von Nahrung, Kleidung und Obdach, die für die Existenz und die Bequemlichkeit des Menschen erforderlich sind, werden

value re-appears in that new vigour imparted to his body and mind, forming fresh capital, to be employed again in the work of production.” (F. Wayland, l.c., pp. 31, 32.) Without noticing any other oddities, it suffices to observe, that what re-appears in the fresh vigour, is not the bread’s price, but its bloodforming substances. What, on the other hand, re-appears in the value of that vigour, is not the means of subsistence, but their value. The same necessities of life, at half the price, would form just as much muscle and bone, just as much vigour, but not vigour of the same value. This confusion of “value” and “vigour” coupled with our author’s pharisaical indefiniteness, mark an attempt, futile for all that, to thrash out an explanation of surplus-value from a mere re-appearance of pre-existing values.

ebenfalls verändert. Sie werden von Zeit zu Zeit aufgebraucht, und ihr Wert erscheint wieder in der neuen Kraft, die sie seinem Körper und Geist verleihen, und bildet so neues Kapital, das wieder im Produktionsprozeß angewandt wird.“ (F. Wayland, l.c. p. 31, 32.) Von allen andren Wunderlichkeiten abgesehen, ist es z.B. nicht der Preis des Brotes, der in der erneuten Kraft wiedererscheint, sondern seine blutbildenden Substanzen. Was dagegen als Wert der Kraft wiedererscheint, sind nicht die Lebensmittel, sondern ihr Wert. Dieselben Lebensmittel, wenn sie nur die Hälfte kosten, produzieren ganz ebensoviel Muskel, Knochen usw., kurz dieselbe Kraft, aber nicht Kraft vom selben Wert. Dies Umsetzen von „Wert“ in „Kraft“ und die ganze pharisäische Unbestimmtheit verstecken den allerdings vergeblichen Versuch, aus bloßem Wiedererscheinen vorgeschobner Werte einen Mehrwert herauszudreheln.

⇓ The opposite is true for labor-power; its value is *not* transferred to the product, but it creates new value, part of which replaces the capitalist’s advance of the value of labor-power.

218:1 It is otherwise with the subjective factor of the labor-process, with labor-power in action. While the laborer, by virtue of his labor being of a specialised kind that has a special object, preserves and transfers to the product the value of the means of production, he at the same time, by the mere act of working, creates each instant an additional or new value. Suppose the process of production to be stopped just when the workman has produced an equivalent for the value of his own, labor-power, when, for example, by six hours’ labor, he has added a value of 72 cents. This value is the surplus of the total value of the product over the portion of its value that is due to the means of production. It is the only original bit of value formed during this process, the only portion of the value of the product created by this process. It is true, this new value only replaces the money advanced by the capitalist in the purchase of the labor-power, and spent by the laborer on the necessities of life. From the point of view of the 72 cents spent, the new value of 72 cents merely appears as its reproduction. But these 72 cents are really reproduced,

223:1 Anders mit dem subjektiven Faktor des Arbeitsprozesses, der sich betätigenden Arbeitskraft. Während die Arbeit durch ihre zweckmäßige Form den Wert der Produktionsmittel auf das Produkt überträgt und erhält, bildet jedes Moment ihrer Bewegung zusätzlichen Wert, Neuwert. Gesetzt, der Produktionsprozeß breche ab beim Punkt, wo der Arbeiter ein Äquivalent für den Wert seiner eignen Arbeitskraft produziert, durch sechsstündige Arbeit z.B. einen Wert von 3 sh. zugesetzt hat. Dieser Wert bildet den Überschuß des Produktenwerts über seine dem Wert der Produktionsmittel geschuldeten Bestandteile. Er ist der einzige Originalwert, der innerhalb dieses Prozesses entstand, der einzige Wertteil des Produkts, der durch den Prozeß selbst produziert ist. Allerdings ersetzt er nur das vom Kapitalisten beim Kauf der Arbeitskraft vorgeschobne, vom Arbeiter selbst in Lebensmitteln verausgabte Geld. Mit Bezug auf die verausgabten 3 sh. erscheint der Neuwert von 3 sh. nur als Reproduktion. Aber er ist wirklich reproduziert, nicht nur scheinbar, wie der Wert der Produktionsmittel. Der Ersatz eines Werts durch den andren ist hier ver-

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unlike the value of the means of production, which only seems reproduced. The replacement of one value by another is here mediated by the creation of new value.

mittelt durch neue Wertschöpfung.

Question 795 *Is the value of the labor-power also transferred to the end product? Does a change in the value of labor-power affect the value of the product?*

↓ Obviously, the surplus-value is new value as well:

218:2/o We know, however, from what has gone before, that the labor-process may continue beyond the time necessary to reproduce and incorporate in the product a mere equivalent for the value of the labor-power. Instead of the six hours that are sufficient for the latter purpose, the process may continue for twelve hours. The action of labor-power, therefore, not only reproduces its own value, but produces value over and above it. This surplus-value is the difference between the value of the product and the value of the elements consumed in the formation of that product, in other words, of the means of production and the labor-power.

223:2 Wir wissen jedoch bereits, daß der Arbeitsprozeß über den Punkt hinaus fort-dauert, wo ein bloßes Äquivalent für den Wert der Arbeitskraft reproduziert und dem Arbeitsgegenstand zugesetzt wäre. Statt der 6 Stunden, die hierzu genügen, währt der Prozeß z.B. 12 Stunden. Durch die Betätigung der Arbeitskraft wird also nicht nur ihr eigener Wert reproduziert, sondern ein überschüssiger Wert produziert. Dieser Mehrwert bildet den Überschuß des Produktenwerts über den Wert der verzehrten Produktbildner, d.h. der Produktionsmittel und der Arbeitskraft.

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Now from the roles of the factors of the labor-process in the transfer and creation of value to the functions of capital. If one understands the flow of value through the production process, one also understands the self-expansion of value in the production process.

219:1a By our representation of the different parts played by the various factors of the labor-process in the formation of the product's value, we have, in fact, characterized the different functions allotted to the different elements of capital in the process of expanding its own value. The surplus of the total value of the product, over the sum of the values of its constituent factors, is the surplus of the expanded capital over the capital originally advanced. The means of production on the one hand, labor-power on the other, are merely the different modes of existence which the value of the original capital assumed when from being money it was transformed into the various factors of the

223:3 Indem wir die verschiedenen Rollen dargestellt, welche die verschiedenen Faktoren des Arbeitsprozesses in der Bildung des Produktenwerts spielen, haben wir in der Tat die Funktionen der verschiedenen Bestandteile des Kapitals in seinem eignen Verwertungsprozeß charakterisiert. Der Überschuß des Gesamtwerts des Produkts über die Wertsumme seiner Bildungselemente ist der Überschuß des verwerteten Kapitals über den ursprünglich vorgeschossenen Kapitalwert. Produktionsmittel auf der einen Seite, Arbeitskraft auf der andren sind nur die verschiedenen Existenzformen, die der ursprüngliche Kapitalwert annahm bei Abstreifung seiner Geldform und seiner Ver-

labor-process.

wandlung in die Faktoren des Arbeitsprozesses.

⇓ Introduction of the concepts constant and variable capital:

219:1b That part of capital then, which is represented by the means of production, by the raw material, auxiliary material and the instruments of labor does not, in the process of production, undergo any quantitative alteration of value. I therefore call it the constant part of capital, or, more shortly, *constant capital*.

223:4 Der Teil des Kapitals also, der sich in Produktionsmittel, d.h. in Rohmaterial, Hilfsstoffe und Arbeitsmittel umsetzt, verändert seine Wertgröße nicht im Produktionsprozeß. Ich nenne ihn daher konstanten Kapitalteil, oder kürzer: konstantes Kapital.

219:2 On the other hand, that part of capital, represented by labor-power, does, in the process of production, undergo an alteration of value. It both reproduces the equivalent of its own value, and also produces an excess, a surplus-value, which may itself vary, may be more or less according to circumstances. This part of capital is continually being transformed from a constant into a variable magnitude. I therefore call it the variable part of capital, or, shortly, *variable capital*.

224:1 Der in Arbeitskraft umgesetzte Teil des Kapitals verändert dagegen seinen Wert im Produktionsprozeß. Er reproduziert sein eignes Äquivalent und einen Überschuß darüber, Mehrwert, der selbst wechseln, größer oder kleiner sein kann. Aus einer konstanten Größe verwandelt sich dieser Teil des Kapitals fortwährend in eine variable. Ich nenne ihn daher variablen Kapitalteil, oder kürzer: variables Kapital.

⇓ The dividing line between constant and variable capital in the process of creating value and surplus-value is the same as that between objective and subjective factors of the labor process:

The same elements of capital which, from the point of view of the labor-process, present themselves respectively as the objective and subjective factors, as means of production and labor-power, present themselves, from the point of view of the process of creating surplus-value, as constant and variable capital.

Dieselben Kapitalbestandteile, die sich vom Standpunkt des Arbeitsprozesses als objektive und subjektive Faktoren, als Produktionsmittel und Arbeitskraft unterscheiden, unterscheiden sich vom Standpunkt des Verwertungsprozesses als konstantes Kapital und variables Kapital.

In the last three paragraphs of the chapter, Marx says that this coincidence (that only the subjective factors of the labor process fall under the concept of variable capital) is not disturbed even if the value of the objective factors of the labor process varies. This variation can be taken in two meanings: (1) a variation over time in the value of the objective factors, and (2) a variation in the proportion between objective and subjective factors of the labor process.

⇓ (1) A change in the values of object of labor and instruments of labor does not alter the fact that they are constant capital. Why not? This change does not originate in the labor process where they function as means of labor but in the labor process where they are produced.

219:3/o The definition of constant capital given above by no means excludes the possibility of a change of value in its elements.

224:2/o Der Begriff des konstanten Kapitals schließt eine Wertrevolution seiner Bestandteile in keiner Weise aus. Nimm an,

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Suppose the price of cotton to be one day sixpence a pound, and the next day, in consequence of a failure of the cotton crop, a shilling a pound. Each pound of the cotton bought at sixpence, and worked up after the rise in value, transfers to the product a value of one shilling; and the cotton already spun before the rise, and perhaps circulating in the market as yarn, likewise transfers to the product twice its, original value. It is plain, however, that these changes of value are independent of the increment or surplus-value added to the value of the cotton by the spinning itself. If the old cotton had never been spun, it could, after the rise, be resold at a shilling a pound instead of at sixpence. Further, the fewer the processes the cotton has gone through, the more certain is this result. We therefore find that speculators make it a rule when such sudden changes in value occur, to speculate in that material on which the least possible quantity of labor has been spent: to speculate, therefore, in yarn rather than in cloth, in cotton itself, rather than in yarn. The change of value in the case we have been considering, originates, not in the process in which the cotton plays the part of a means of production, and in which it therefore functions as constant capital, but in the process in which the cotton itself is produced. The value of a commodity, it is true, is determined by the quantity of labor contained in it, but this quantity is itself limited by social conditions. If the time socially necessary for the production of any commodity alters—and a given weight of cotton represents, after a bad harvest, more labor than after a good one—all previously existing commodities of the same class are affected, because they are, as it were, only individuals of the species,²⁶ and their value at any given time is measured by the labor socially necessary, *i.e.*, by the labor necessary for their production under the then existing social conditions.

²⁶ „Toutes les productions d'un même genre ne forment proprement qu'une masse, dont le

das Pfund Baumwolle koste heute 6 d. und steige morgen, infolge eines Ausfalls der Baumwollernte, auf 1 sh. Die alte Baumwolle, die fortfährt, verarbeitet zu werden, ist zum Wert von 6 d. gekauft, fügt aber jetzt dem Produkt einen Wertteil von 1 sh. zu. Und die bereits versponnene, vielleicht schon als Garn auf dem Markt zirkulierende Baumwolle fügt dem Produkt ebenfalls das Doppelte ihres ursprünglichen Werts zu. Man sieht jedoch, daß diese Wertwechsel unabhängig sind von der Verwertung der Baumwolle im Spinnprozeß selbst. Wäre die alte Baumwolle noch gar nicht in den Arbeitsprozeß eingegangen, so könnte sie jetzt zu 1 sh. statt zu 6 d. wieder verkauft werden. Umgekehrt: Je weniger Arbeitsprozesse sie noch durchlaufen hat, desto sicherer ist dies Resultat. Es ist daher Gesetz der Spekulation, bei solchen Wertrevolutionen auf das Rohmaterial in seiner mindest verarbeiteten Form zu spekulieren, also eher auf Garn als auf Gewebe und eher auf die Baumwolle selbst als auf das Garn. Die Wertänderung entspringt hier in dem Prozeß, der Baumwolle produziert, nicht in dem Prozeß, worin sie als Produktionsmittel und daher als konstantes Kapital funktioniert. Der Wert einer Ware ist zwar bestimmt durch das Quantum der in ihr enthaltenen Arbeit, aber dies Quantum selbst ist gesellschaftlich bestimmt. Hat sich die gesellschaftlich zu ihrer Produktion erheischte Arbeitszeit verändert—und dasselbe Quantum Baumwolle z.B. stellt in ungünstigen Ernten größeres Quantum Arbeit dar, als in günstigen—, so findet eine Rückwirkung auf die alte Ware statt, die immer nur als einzelnes Exemplar ihrer Gattung gilt,²⁶ deren Wert stets durch gesellschaftlich notwendige, also auch stets unter gegenwärtigen gesellschaftlichen Bedingungen notwendige Arbeit gemessen wird.

²⁶ „Alle Erzeugnisse der gleichen Art bilden eigentlich nur eine Masse, deren Preis allgemein

8.3. [Constant and Variable Capital]

prix se détermine en général et sans égard aux circonstances particulières.” (Le Trosne, l.c., p. 893.)

und ohne Rücksicht auf die besonderen Umstände bestimmt wird.“ (Le Trosne, l.c. p. 893.)

↓ Now the same argument for the instruments rather than the objects of labor:

220:1 As the value of the raw material may change, so, too, may that of the instruments of labor, of the machinery, etc., employed in the process; and consequently that portion of the value of the product transferred to it from them, may also change. If in consequence of a new invention, machinery of a particular kind can be produced by a diminished expenditure of labor, the old machinery becomes depreciated more or less, and consequently transfers so much less value to the product. But here again, the change in value originates outside the process in which the machine is acting as a means of production. Once engaged in this process, the machine cannot transfer more value than it possesses apart from the process.

225:1 Wie der Wert des Rohmaterials, mag der Wert bereits im Produktionsprozeß dienender Arbeitsmittel, der Maschinerie usw., wechseln, also auch der Wertteil, den sie dem Produkt abgeben. Wird z.B. infolge einer neuen Erfindung Maschinerie derselben Art mit verminderter Ausgabe von Arbeit reproduziert, so entwertet die alte Maschinerie mehr oder minder und überträgt daher auch verhältnismäßig weniger Wert auf das Produkt. Aber auch hier entspringt der Wertwechsel außerhalb des Produktionsprozesses, worin die Maschine als Produktionsmittel funktioniert. In diesem Prozeß gibt sie nie mehr Wert ab, als sie unabhängig von diesem Prozeß besitzt.

↓ (2) Changing proportions between the objective and subjective factors of the labor process, e.g., an increase of the objective as relatively to the subjective factors, does not alter the fact that the one represents constant capital and the other variable capital.

220:2/o Just as a change in the value of the means of production, even after they have commenced to take a part in the labor-process, does not alter their character as constant capital, so, too, a change in the proportion of constant to variable capital does not affect the respective functions of these two kinds of capital. The technical conditions of the labor-process may be revolutionised to such an extent, that where formerly ten men using ten implements of small value worked up a relatively small quantity of raw material, one man may now, with the aid of one expensive machine, work up one hundred times as much raw material. In the latter case we have an enormous increase in the constant capital, that is represented by the total value of the means of production used, and at the same time a great reduction in the variable capital, invested in labor-power. Such a revolution, however, alters only the quantitative relation between the constant and the variable capi-

225:2 Wie ein Wechsel im Wert der Produktionsmittel, ob auch rückwirkend nach ihrem bereits erfolgten Eintritt in den Prozeß, ihren Charakter als konstantes Kapital nicht verändert, ebensowenig berührt ein Wechsel in der Proportion zwischen konstantem und variablem Kapital ihren funktionellen Unterschied. Die technischen Bedingungen des Arbeitsprozesses mögen z.B. so umgestaltet werden, daß, wo früher 10 Arbeiter mit 10 Werkzeugen von geringem Wert eine verhältnismäßig kleine Masse von Rohmaterial verarbeiteten, jetzt 1 Arbeiter mit einer teuren Maschine das hundertfache Rohmaterial verarbeitet. In diesem Fall wäre das konstante Kapital, d.h. die Wertmasse der angewandten Produktionsmittel, sehr gewachsen und der variable Teil des Kapitals, der in Arbeitskraft vorgeschoben, sehr gefallen. Dieser Wechsel ändert jedoch nur das Größenverhältnis zwischen konstantem und variablem Kapital oder die Proportion, worin das Gesamtkapital in konstan-

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tal, or the proportions in which the total capital is split up into its constant and variable constituents; it has not in the least degree affected the essential difference between the two.

te und variable Bestandteile zerfällt, berührt dagegen nicht den Unterschied von konstant und variabel.

Question 796 *Why do materials and supplies already go as prices (instead of values) into the end product?*

Multiple Choice Question 797 *Check those cost items whose values are transferred to the end product.*

- (a) Advertising costs
- (b) Lighting and heating the factory buildings
- (c) Cleaning the factory buildings
- (d) Value of Labor-Power of productive workers
- (e) Selling and billing expenses
- (f) Expenses of the workers' lunch room

Question 798 *Why is one part of the capital called constant capital and the other variable capital? Into which factor of the production process is the constant capital transformed, and into which the variable capital?*

Question 799 *What is fixed and circulating capital and what is their relation to constant and variable capital? Why do bourgeois economists always confuse these two concepts?*

Question 800 *Which contradictions of capitalist production are connected with the fact that technical progress increases the constant capital in relation to the variable capital?*

Question 801 *Why is the value of a given commodity not determined by the amount of labor actually contained in it but by the labor necessary for its reproduction?*

Question 802 *Why do the means of production remain constant capital even if their value changes over time?*

9. The Rate of Surplus-Value

9.1. The Degree of Exploitation of Labor-Power

In chapter Four, 160:5/o, surplus-value is defined as the “increment in capital.” In the circuit of capital $M-C-M'$, surplus-value is the excess of the value of the capital flowing back over the value of the capital advanced. This definition is agnostic about the mechanism generating this increment. In section 9.1 of chapter Nine, Marx assumes that this mechanism is capitalist production as introduced in chapter Six, and massages the above definition in order to get a description of surplus-value which tells us in as much detail as possible how this increment came about.

9.1.a. [Rate of Surplus-Value]

The first step in this massaging of the definition is the observation that in the case of productive capital surplus-value is the excess of the value of the product over the value of the elements of production. He is setting the stage for an inquiry which aspect of the production process generates this excess.

221:1 The surplus-value generated in the production process by C , the capital advanced, i.e., the valorization of the value of the capital C , represents itself at first as the amount by which the value of the product exceeds the value of the elements entering its production.

226:1 Der Mehrwert, den das vorgeschossne Kapital C im Produktionsprozeß erzeugt hat, oder die Verwertung des vorgeschossnen Kapitalwerts C stellt sich zunächst dar als der Überschuß des Werts des Produkts über die Wertsumme seiner Produktionselemente.

↑ This definition clearly points to the production process as the source of surplus-value. Therefore a closer look at the production process is in order.

↓ The capital advanced in the circuit of productive capital is heterogeneous. Marx looks now at the components separately to see which component is generating the surplus-value. Therefore Marx looks at the elements entering the production of the finished product, and at their values:

The capital C splits into two components, one, the sum of money c laid out upon the means of production, and the other, the sum of money v expended upon the labor-power; c represents the portion that has become constant capital, and v the portion that has become variable capital. At first then, $C = c + v$: for example, if £500 is the capital advanced, its components may be such that the £500 = £410 const. + £90 var.

226:2 Das Kapital C zerfällt in zwei Teile, eine Geldsumme c , die für Produktionsmittel, und eine andre Geldsumme v , die für Arbeitskraft verausgabt wird; c stellt den in konstantes, v den in variables Kapital verwandelten Wertteil vor. Ursprünglich ist also $C = c + v$, z.B. das vorgeschossne Kapital von 500 Pfd.St. = 410 Pfd.St. + 90 Pfd.St.

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These components enter the production process. For now, Marx treats the production process itself as a black box. Instead, he looks at what comes out of the production process. When the process of production is finished, we get a commodity whose value = $c + v + s$, where s is the surplus-value; or taking our former figures, the value of this commodity may be (£410 const. + £90 var.) + £90 surpl. The original capital has now changed from C to C' , from £500 to £590. The difference is s or a surplus-value of £90.

Am Ende des Produktionsprozesses kommt Ware heraus, deren Wert = $c + v + m$, wo m der Mehrwert, z.B. 410 Pfd.St. + 90 Pfd.St. + 90 Pfd.St. Das ursprüngliche Kapital C hat sich in C' verwandelt, aus 500 Pfd.St. in 590 Pfd.St. Die Differenz zwischen beiden ist = m , einem Mehrwert von 90.

↓ In order to understand the next passage, the reader should bear in mind that Marx distinguishes between depth categories and surface categories. The surface category from which Marx started is the valorization of the advanced capital: the capitalist advances C at the beginning and gets back the bigger C' at the end. The capitalist receives the bigger C' on the market, but we know that the market cannot create value. Which underlying process allows C to become C' ? Marx does not answer this yet, but since he is looking at productive capital he can make the following simple calculation: As long as the time elapsed between $M-C$ and $C'-M'$ is exactly the production period, and as long as the capital advanced is equal to the value of the elements of production, i.e., of the cost of the product, this valorization is equal to the difference between the value of the product and the cost of the product.

Since the value of the constituent elements of the product is equal to the value of the advanced capital, it is indeed a tautology to say, that the excess of the value of the product over the value of its constituent elements, is equal to the expansion of the capital advanced or to the surplus-value produced.

Da der Wert der Produktionselemente gleich dem Wert des vorgeschossenen Kapitals, so ist es in der Tat eine Tautologie, daß der Überschuß des Produktenwerts über den Wert seiner Produktionselemente gleich der Verwertung des vorgeschossenen Kapitals oder gleich dem produzierten Mehrwert.

This is not really a calculation but it simply looks at the same numbers from a different angle, from the side of the production process instead from the side of the market. It is such a small step that Marx even calls it a tautology. This is an overstatement. Mathematically it is a tautology, it is still the same data, but now we are looking at these data from a different direction, from the perspective of the production process instead of the market. And Marx is of course conscious of the importance of this perspectival switch. While writing the above he is conscious of the fact that the surplus-value originates in a different sphere (the production process) than where it first becomes visible (the circulation process).

[Abstraction from Undepreciated Part of Fixed Capital]

↓ However already this simple change in perspective is not as straightforward as it may seem: if *fixed capital* is present, then the surface will only then yield an accurate representation of the hidden processes mediating this increase in value, if one compares the value of the finished product not with the entire capital advanced, but only counts the depreciation of the fixed capital instead of the entire value of the fixed capital.

Nevertheless, we must examine this tautology a little more closely. The two things compared are, the value of the product and the value of its constituents consumed in

226:3/o Indes erfordert diese Tautologie eine nähere Bestimmung. Was mit dem Produktenwert verglichen wird, ist der Wert der in seiner Bildung aufgezehrten Produk-

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the process of production. Now we have seen how that portion of the constant capital which consists of the instruments of labor, transfers to the production only a fraction of its value, while the remainder of that value continues to reside in those instruments. Since this remainder plays no part in the formation of value, we may at present abstract from it.

↑ The transition from the entire fixed capital advanced to that portion of the fixed capital which is depreciated is an abstraction, i.e., it amounts to disregarding an irrelevant factor. ↓ Such an abstraction is only then legitimate if the omission of the irrelevant factor does not make a difference. Marx double-checks therefore what the calculation must look like if one does *not* make this abstraction: in this case C' must be the value of the finished products *plus* the not yet depreciated part of the value of the fixed capital. In his numerical example, the not yet depreciated part is the round number £1000, to make it easy for the reader to separate it from the other amounts:

To introduce it into the calculation would make no difference. For instance, taking our former example, $c = £410$: suppose this sum to consist of £312 value of raw material, £44 value of auxiliary material, and £54 value of the machinery worn away in the process; and suppose that the total value of the machinery employed is £1,054. Out of this latter sum, then, we reckon as advanced for the purpose of turning out the product, the sum of £54 alone, which the machinery loses by wear and tear in the process; for this is all it parts with to the product. Now if we also reckon the remaining £1,000, which still continues in the machinery, as transferred to the product, we ought also to reckon it as part of the value advanced, and thus make it appear on both sides of our calculation.^{26a} We should, in this way, get £1,500 on one side and £1,590 on the other.

↓ The footnote documents Malthus making the same calculation:

^{26a} "If we reckon the value of the fixed capital employed as a part of the advances, we must reckon the remaining value of such capital at the end of the year as a part of the annual returns." (Malthus, "Princ. of Pol. Econ." 2nd. ed., Lond., 1836, p. 269.)

Marx did not live long enough to see that an entire branch of the modern mathematical input-output literature treats the nondepreciated fixed capital in exactly this way, as a joint product.

The difference of these two sums, or the

tionselemente. Nun haben wir aber gesehen, daß der aus Arbeitsmitteln bestehende Teil des angewandten konstanten Kapitals nur ein Stück seines Werts an das Produkt abgibt, während ein andres Stück in seiner alten Existenzform fort dauert. Da das letztere keine Rolle in der Wertbildung spielt, ist hier davon zu abstrahieren.

Sein Hineinziehen in die Rechnung würde nichts ändern. Nimm an, $c = 410$ Pfd. St. bestehe aus Rohmaterial zu 312 Pfd.St., Hilfsstoffen zu 44 Pfd.St. und im Prozeß verschleißender Maschinerie von 54 Pfd. St., der Wert der wirklich angewandten Maschinerie betrage aber 1054 Pfd.St. Als vorgeschossen zur Erzeugung des Produktenwerts berechnen wir nur den Wert von 54 Pfd.St., den die Maschinerie durch ihre Funktion verliert und daher dem Produkt abgibt. Rechneten wir die 1000 Pfd. St. mit, die in ihrer alten Form fortexistieren als Dampfmaschine usw., so müßten wir sie auf beiden Seiten mitrechnen, auf Seite des vorgeschossenen Werts und auf Seite des Produktenwerts,^{26a} und erhielten so resp. 1500 Pfd.St. und 1590 Pfd.St.

^{26a} „Wenn wir den Wert des angewandten fixen Kapitals als Teil des vorgeschossenen Kapitals rechnen, müssen wir am Ende des Jahres den verbliebenen Wert dieses Kapitals als einen Teil der Jahreseinnahme rechnen.“ (Malthus, „Princ. of Pol. Econ.“, 2nd ed., London 1836, p. 269.)

Die Differenz oder der Mehrwert wäre nach

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surplus-value, would still be £90.

wie vor 90 Pfd.St.

↑ The main result of this exercise is that the magnitude of surplus-value is the same in both calculations. This confirms that the abstraction of including only the depreciation of the fixed capital into the constant capital does not make a difference for what is essential. ↓ But this abstraction is to be preferred, because the undepreciated value of the fixed capital does not play a role for the value of the finished product:

Throughout this book therefore, by constant capital advanced for the production of value, we always mean, unless the opposite is clear from the context, the value of the means of production actually consumed in the process, and that value alone.

Unter dem zur Wertproduktion vorgeschossen konstanten Kapital verstehn wir daher, wo das Gegenteil nicht aus dem Zusammenhang erhellt, stets nur den Wert der in der Produktion verzehrten Produktionsmittel.

[Abstraction from Constant Capital]

↓ Now Marx goes one step further. He argues that, in order to get the mechanisms which are really responsible for the expansion of the value advanced, one must abstract not only from the fixed capital but furthermore from the entire constant capital.

213:1/o This being so, let us return to the formula $C = c + v$, which we saw was transformed into $C' = (c + v) + s$, C becoming C' . We know that the value of the constant capital is transferred to, and merely re-appears in the product.

227:1/o Dies vorausgesetzt, kehren wir zurück zur Formel $C = c + v$, die sich in $C' = c + v + m$ und eben dadurch C in C' verwandelt. Man weiß, daß der Wert des konstanten Kapitals im Produkt nur wieder erscheint.

↑ The formulation “merely” in this last sentence confirms that Marx is looking for the source of surplus-value. This source cannot lie in c . In the preceding chapter Eight, Marx has shown that only v grows while c remains constant. ↓ Although c reappears in the final product, it is not part of the value created in the process.

The new value actually created in the process, the value produced, or value-product, is therefore not the same as the value of the product; it is not, as it would at first sight appear $(c + v) + s$ or £410 const. + £90 var. + £90 surpl.; but $v + s$ or £90 var. + £90 surpl., not £590 but £180.

Das im Prozeß wirklich neu erzeugte Wertprodukt ist also verschieden von dem aus dem Prozeß erhaltenen Produktenwert, daher nicht, wie es auf den ersten Blick scheint, $c + v + m$ oder 410 Pfd.St. + 90 Pfd.St. + 90, sondern $v + m$ oder 90 Pfd.St. + 90 Pfd.St., nicht 590 Pfd.St., sondern 180 Pfd.St.

↓ In a similar reasoning to that applied to the fixed capital, Marx looks at the counterfactual case that $c = 0$, and comes to the conclusion that the valorization process is not affected.

If $c = 0$, or in other words, if there were branches of industry in which the capitalist could dispense with all means of production made by previous labor, whether they be raw material, auxiliary material, or instruments of labor, employing only labor-power and materials supplied by nature, in that case, there would be no constant capital to transfer to the product. This component of the value of the product, *i.e.*, the £410 in our example, would be eliminated, but the

Wäre c , das konstante Kapital, = 0, in andren Worten, gäbe es Industriezweige, worin der Kapitalist keine produzierten Produktionsmittel, weder Rohmaterial noch Hilfsstoffe, noch Arbeitsinstrumente, sondern nur von Natur vorhandne Stoffe und Arbeitskraft aufzuwenden hätte, so wäre kein konstanter Wertteil auf das Produkt zu übertragen. Dies Element des Produktenwerts, in unsrem Beispiel 410 Pfd.St., fiel fort, aber das Wertprodukt von 180 Pfd.St., wel-

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sum of £180, the amount of new value created, or the value produced, which contains £90 of surplus-value, would remain just as great as if c represented the highest value imaginable. We should have $C = (0 + v) = v$ or C' the expanded capital $= v + s$ and therefore $C' - C = s$ as before.

↓ After showing that the assumption $c = 0$ does not change the value of s , Marx says now “conversely.” This does not mean that he is going to discuss $v = 0$, but he is discussing the assumption that v does not grow, i.e., he discusses the case $s = 0$. If $s = 0$, the observed valorization would not have occurred even with a nonzero c .

Conversely, if $s = 0$ or, in other words, if the labor-power, whose value is advanced in the form of variable capital, were to produce only its equivalent, we should have $C = c + v$ or C' the value of the product $= (c + v) + 0$ or $C = C'$. The capital advanced would, in this case, not have expanded its value.

↑ This is additional proof that only the variable capital and not the constant capital is responsible for the surplus-value. ↓ But we know that already anyway from chapter Eight:

214:1 From what has gone before, we know that surplus-value is purely the result of a variation in the value of v , of that portion of the capital which is transformed into labor-power; consequently, $v + s = v + \Delta v$, or v plus an increment of v .

↓ Since only v grows and c remains constant, the analysis of the process in its pure form requires that we set $c = 0$.

But the true change in value, and the rate of that variation, are obscured by the circumstance that in consequence of the increase in the variable component of the capital, there is also an increase in the sum total of the advanced capital. It was originally £500 and becomes £590. Therefore in order to conduct a pure investigation, we must make abstraction from that portion of the value of the product, in which constant capital alone appears, and consequently must equate the constant capital to zero or make $c = 0$. This is merely an application of a mathematical rule, employed whenever we operate with constant and variable magnitudes, related to each other by the symbols of addition and subtraction only.

↑ The mathematical law referred to here by Marx is: if one adds a constant to a variable magnitude, one gets something which looks like a variable magnitude, even though not ev-

ches 90 Pfd.St. Mehrwert enthält, bliebe ganz ebenso groß, als ob c die größte Wertsomme darstellte. Wir hätten $C = 0 + v = v$, und C' , das verwertete Kapital, $= v + m$, $C' - C$ nach wie vor $= m$.

Wäre umgekehrt $m = 0$, in andren Worten, hätte die Arbeitskraft, deren Wert im variablen Kapital vorgeschossen wird, nur ein Äquivalent produziert, so $C = c + v$, und C' (der Produktenwert) $= c + v + 0$, daher $C = C'$. Das vorgeschossne Kapital hätte sich nicht verwertet.

228:1 Wir wissen in der Tat bereits, daß der Mehrwert bloß Folge der Wertveränderung ist, die mit v , dem in Arbeitskraft umgesetzten Kapitalteil vorgeht, daß also $v + m = v + \Delta v$ (v plus Inkrement von v) ist.

Aber die wirkliche Wertveränderung und das Verhältnis, worin sich der Wert ändert, werden dadurch verdunkelt, daß infolge des Wachstums seines variierenden Bestandteils auch das vorgeschossne Gesamtkapital wächst. Es war 500, und es wird 590. Die reine Analyse des Prozesses erheischt also von dem Teil des Produktenwerts, worin nur konstanter Kapitalwert wieder erscheint, ganz zu abstrahieren, also das konstante Kapital $c = 0$ zu setzen, und damit ein Gesetz der Mathematik anzuwenden, wo sie mit variablen und konstanten Größen operiert und die konstante Größe nur durch Addition oder Subtraktion mit der variablen verbunden ist.

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every part of it is variable. It should be noted that in modern mathematics, any constant whose value is not known is called a “variable,” while Marx distinguishes between constant magnitudes, i.e. magnitudes which do not vary over time, and variable magnitudes, which vary over time. Modern mathematics is static in the sense that it has no concept of magnitudes in motion, while Marx’s intuition took it for granted that some mathematical quantities are static and others are in motion.

[Three Remarks Regarding Variable Capital]

↓ Now that we have zeroed in on the variable capital as the true agent of change in the overall capital value, the next step is to define the *rate* at which this v expands its value. Marx will give this definition in , but first he makes three additional remarks.

Question 803 *What is the name for the value difference by which the value of the product exceeds the value of the elements of production? From the point of view of the capitalist it looks like his value begets more value. Explain where this difference really comes from.*

(1) There is the contradiction that this variable capital is a fixed amount of money, i.e., it is not variable.

223:2/o A different difficulty is caused by the original form of the variable capital. In our example, $C' = £410$ constant capital + £90 variable capital + £90 surplus-value. But £90 is a given and therefore a constant quantity; hence it seems absurd to treat it as variable.

228:2 Eine andre Schwierigkeit entspringt aus der ursprünglichen Form des variablen Kapitals. So im obigen Beispiel ist $C' = 410$ Pfd.St. konstantes Kapital + 90 Pfd.St. variables Kapital + 90 Pfd.St. Mehrwert. Neunzig Pfd.St. sind aber eine gegebne, also konstante Größe, und es scheint daher ungerneimt, sie als variable Größe zu behandeln.

↓ Solution of this contradiction:

But in fact, the term £90 variable capital is here merely a symbol to show that this value undergoes a process. The portion of the capital invested in the purchase of labor-power is a definite quantity of materialised labor, a constant value like the value of the labor-power purchased. But in the process of production the place of the £90 is taken by the labor-power in action, dead labor is replaced by living labor, something stagnant by something flowing, a constant by a variable. The result is the reproduction of v plus an increment of v . From the standpoint then of capitalist production, the whole process is the self-motion of the value that is transformed into labor-power, and which was originally constant. Both the process and its result are therefore assigned to this value. If, therefore, the formula “£90 variable capital,” or “so much self-expanding value”, ap-

Aber 90 Pfd.St. oder 90 Pfd.St. variables Kapital ist hier in der Tat nur Symbol für den Prozeß, den dieser Wert durchläuft. Der im Ankauf der Arbeitskraft vorgeschossne Kapitalteil ist ein bestimmtes Quantum vergegenständlichter Arbeit, also konstante Wertgröße, wie der Wert der gekauften Arbeitskraft. Im Produktionsprozeß selbst aber tritt an die Stelle der vorgeschossnen 90 Pfd.St. die sich betätigende Arbeitskraft, an die Stelle toter, lebendige Arbeit, an die Stelle einer ruhenden eine fließende Größe, an die Stelle einer konstanten eine variable. Das Resultat ist die Reproduktion von v plus Inkrement von v . Vom Standpunkt der kapitalistischen Produktion ist dieser ganze Verlauf Selbstbewegung des in Arbeitskraft umgesetzten, ursprünglich konstanten Werts. Ihm wird der Prozeß und sein Resultat zugut geschrieben. Erscheint die For-

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appears contradictory, this is only because they bring to the surface a contradiction immanent in capitalist production.

mel 90 Pfd.St. variables Kapital oder sich verwertender Wert daher widerspruchsvoll, so drückt sie nur einen der kapitalistischen Produktion immanenten Widerspruch aus.

↑ Marx digs out here yet another non-obvious contradiction of the daily practical activity in capitalism. It is contradictory to consider the advanced £90, which is a constant magnitude, as variable capital. But this is a contradiction inherent to capitalist production: capital, i.e., dead labor, a constant amount of value, claims the value created by living labor as its own product. Although the surplus-value does not come from the *value* of labor-power, it is credited to the capitalist who paid this value.

Question 804 Why does Marx write in 322:2/o “the formula appears contradictory” instead “the formula seems contradictory” or “the formula is contradictory”?

↓ (2) Second remark: Setting $c = 0$ is an everyday procedure whenever someone subtracts the costs of materials in order to find out the net value production in a certain industry.

At first sight it appears a strange proceeding, to equate the constant capital to zero. Yet it is what we do every day. If, for example, we wish to calculate the amount of England’s profits from the cotton industry, we first of all deduct the sums paid for cotton to the United States, India, Egypt and other countries; in other words, the value of the capital that merely re-appears in the value of the product, is put = 0.

229:1 Die Gleichsetzung des konstanten Kapitals mit 0 befremdet auf den ersten Blick. Indes vollzieht man sie beständig im Alltagsleben. Will jemand z.B. Englands Gewinn an der Baumwollindustrie berechnen, so zieht er vor allem den an die Vereinigten Staaten, Indien, Ägypten usw. gezahlten Baumwollpreis ab; d.h., er setzt im Produktenwert nur wiedererscheinenden Kapitalwert = 0.

↓ (3) Ratio of profits to total advanced capital has important economic meaning as well. This is discussed in book 3, but will be abstracted away here.

215:2 Of course the ratio of the surplus-value not only to that portion of the capital from which it immediately springs, and whose change of value it represents, but also to the sum total of the capital advanced is economically of very great importance. We shall, therefore, in the third book, treat of this ratio exhaustively. In order to enable one portion of a capital to expand its value by being converted into labor-power, it is necessary that another portion be converted into means of production. In order that variable capital may perform its function, constant capital must be advanced in proper proportion, a proportion given by the special technical conditions of each labor-process.

229:2 Allerdings hat das Verhältnis des Mehrwerts nicht nur zum Kapitalteil, woraus er unmittelbar entspringt und dessen Wertveränderung er darstellt, sondern auch zum vorgeschossenen Gesamtkapital seine große ökonomische Bedeutung. Wir behandeln dies Verhältnis daher ausführlich im dritten Buch. Um einen Teil des Kapitals durch seinen Umsatz in Arbeitskraft zu verwerten, muß ein anderer Teil des Kapitals in Produktionsmittel verwandelt werden. Damit das variable Kapital funktioniere, muß konstantes Kapital in entsprechenden Proportionen, je nach dem bestimmten technischen Charakter des Arbeitsprozesses, vorgeschossen werden.

↓ Marx compares the constant capital to the test tube in which a chemical reaction takes place; right now we are interested in the reaction itself.

The circumstance, however, that retorts and other vessels, are necessary to a chemical

Der Umstand jedoch, daß man zu einem chemischen Prozeß Retorten und andre

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process, does not compel the chemist to notice them in the result of his analysis. If we look at the means of production, in their relation to the creation of value, and to the variation in the quantity of value, apart from anything else, they appear simply as the material in which labor-power, the value-creator, incorporates itself. Neither the nature, nor the value of this material is of any importance. The only requisite is that there be a sufficient supply to absorb the labor expended in the process of production. That supply once given, the material may rise or fall in value, or even be, as land and the sea, without any value in itself; but this will have no influence on the creation of value or on the variation in the quantity of value.²⁷

Gefäße braucht, verhindert nicht, bei der Analyse von der Retorte selbst zu abstrahieren. Sofern Wertschöpfung und Wertveränderung für sich selbst, d.h. rein betrachtet werden, liefern die Produktionsmittel, diese stofflichen Gestalten des konstanten Kapitals, nur den Stoff, worin sich die flüssige, wertbildende Kraft fixieren soll. Die Natur dieses Stoffes ist daher auch gleichgültig, ob Baumwolle oder Eisen. Auch der Wert dieses Stoffes ist gleichgültig. Er muß nur in hinreichender Masse vorhanden sein, um das während des Produktionsprozesses zu verausgabende Arbeitsquantum einsaugen zu können. Diese Masse gegeben, mag ihr Wert steigen oder fallen, oder sie mag wertlos sein, wie Erde und Meer, der Prozeß der Wertschöpfung und Wertveränderung wird nicht davon berührt.²⁷

⇓ The footnote clarifies that the word “value creation” does not refer to a creation out of nothing.

²⁷ What Lucretius says is self-evident; “nil posse creari de nihilo,” out of nothing, nothing can be created. Creation of value is transformation of labor-power into labor. Labor-power itself is energy transferred to a human organism by means of nourishing matter.

²⁷ Note zur 2. Ausg. Es versteht sich von selbst mit Lucretius „nil posse creari de nihilo“. Aus nichts wird nichts. „Wertschöpfung“ ist Umsatz von Arbeitskraft in Arbeit. Ihrerseits ist die Arbeitskraft vor allem in menschlichen Organismus umgesetzter Naturstoff.

Question 806 *The value of the constant capital reappears in the product. A change in the value of the constant capital has no effect on the surplus-value. Is the same true for the value of the variable capital and its changes?*

[Correct Quantitative Measure for Creation of Surplus-Value]

⇓ After these three side remarks Marx continues in the main current of the argument. Setting $c = 0$ one gets the rate at which that part of the capital expands that is responsible for the expansion of the entire capital. Marx calls this the rate of surplus-value.

In the first place then we equate the constant capital to zero. The capital advanced is consequently reduced from $c + v$ to v , and instead of the value of the product $c + v + s$ we have now the value produced $v + s$. Given the new value produced = £180, which sum consequently represents the whole labor expended during the process, then subtracting from it £90 the value of the variable capital, we have remaining £90, the amount of the surplus-value. This sum of £90 or s expresses the absolute quan-

229:3/o Wir setzen also zunächst den konstanten Kapitalteil gleich Null. Das vorgeschobne Kapital reduziert sich daher von $c + v$ auf v , und der Produktenwert $c + v + m$ auf das Wertprodukt $v + m$. Gegeben das Wertprodukt = 180 Pfd.St., worin sich die während der ganzen Dauer des Produktionsprozesses fließende Arbeit darstellt, so haben wir den Wert des variablen Kapitals = 90 Pfd.St. abzuziehn, um den Mehrwert = 90 Pfd.St. zu erhalten. Die Zahl 90 Pfd.St. = m drückt hier die absolute Größe des produ-

tity of surplus-value produced. The relative quantity produced, or the increase per cent of the variable capital, is determined, it is plain, by the ratio of the surplus-value to the variable capital, or is expressed by s/v . In our example this ratio is $90/90$, which gives an increase of 100%. This relative increase in the value of the variable capital, or the relative magnitude of the surplus-value, I call, “The rate of surplus-value.”²⁸

²⁸ In the same way that the English use the terms “rate of profit,” “rate of interest.” We shall see, in Book III, that the rate of profit is no mystery, so soon as we know the laws of surplus-value. If the order is reversed, neither the one nor the other is comprehensible.

↑ The footnote makes a strong epistemological statement: if approached in the wrong order, things become incomprehensible.

All this looks like hairsplitting. But we will see that Marx’s conscientious (“conscientious” (*gewissenhaft*) is Marx’s own formulation, see *Contribution* p. 265:1 and footnote 30 to in *Capital*.) analysis of the surface pays off: the rate of surplus-value defined in this way gives a direct look at an important category in the underlying process of production, namely, at the rate of exploitation.

zierten Mehrwerts aus. Seine proportionelle Größe aber, also das Verhältnis, worin das variable Kapital sich verwertet hat, ist offenbar bestimmt durch das Verhältnis des Mehrwerts zum variablen Kapital oder ist ausgedrückt in m/v . Im obigen Beispiel also in $90/90 = 100\%$. Diese verhältnismäßige Verwertung des variablen Kapitals oder die verhältnismäßige Größe des Mehrwerts nenne ich Rate des Mehrwerts.²⁸

²⁸ In derselben Weise, wie der Engländer „rate of profits“, „rate of interest“, usw. braucht. Man wird aus Buch III sehen, daß die Profitrate leicht zu begreifen, sobald man die Gesetze des Mehrwerts kennt. Auf dem umgekehrten Weg begreift man ni l’un, ni l’autre.

9.1.b. [Rate of Exploitation]

So far Marx was concerned about how the *surface* appearance of surplus-value as the excess of sales price over cost should be read. The important quantitative relationship is that between v and s . In the next two paragraphs he discusses an equally important quantitative relationship in the *production* process. Now we are no longer on the level of surface appearances, but we are analyzing a process that is taking place behind closed doors.

↓ Marx begins with the introduction of the concept “necessary labor” as distinct from “surplus labor.” Although the word “necessary labor” was used previously, this is a new and different meaning of the same word.

We have seen that the laborer, during one portion of the labor-process, produces only the value of his labor-power, that is, the value of his means of subsistence. Now since his work forms part of a system, based on the social division of labor, he does not directly produce the actual necessities which he himself consumes; he produces instead a particular commodity, yarn for example, whose value is equal to the value of those necessities or of the money with which they can be bought.

230:1/o Wir haben gesehen, daß der Arbeiter während eines Abschnitts des Arbeitsprozesses nur den Wert seiner Arbeitskraft produziert, d.h. den Wert seiner notwendigen Lebensmittel. Da er in einem auf gesellschaftlicher Teilung der Arbeit beruhenden Zustand produziert, produziert er seine Lebensmittel nicht direkt, sondern in Form einer besonderen Ware, des Garns z.B., einen Wert gleich dem Wert seiner Lebensmittel oder dem Geld, womit er sie kauft.

Marx does not write “a value equal to the value of the money” but “a value equal to the money.”

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The portion of his day's labor devoted to this purpose, will be greater or less, in proportion to the value of the necessaries that he daily requires on an average, or, what amounts to the same thing, in proportion to the labor-time required on an average to produce them. If the value of those necessaries represent on an average the expenditure of six hours' labor, the workman must on an average work for six hours to produce that value.

The concept of necessary labor can be defined whenever there is commodity production, even if labor-power is not sold as a commodity.

If instead of working for the capitalist, he worked independently on his own account, he would, other things being equal, still be obliged to labor for the same number of hours, in order to produce the value of his labor-power, and thereby to gain the means of subsistence necessary for his conservation or continued reproduction.

But under capitalism, this necessary labor obtains a specific form; it takes the form of reproduction rather than that of a new production of value:

But as we have seen, during that portion of his day's labor in which he produces the value of his labor-power, say three shillings, he produces only an equivalent for the value of his labor-power already advanced^{28a} by the capitalist; the new value created only replaces the variable capital advanced. It is owing to this fact, that the production of the new value of three shillings appears as mere reproduction.

Der Teil seines Arbeitstags, den er hierzu verbraucht, ist größer oder kleiner, je nach dem Wert seiner durchschnittlichen täglichen Lebensmittel, also je nach der zu ihrer Produktion erheischten durchschnittlichen täglichen Arbeitszeit. Wenn der Wert seiner täglichen Lebensmittel im Durchschnitt 6 vergegenständlichte Arbeitsstunden darstellt, so muß der Arbeiter im Durchschnitt täglich 6 Stunden arbeiten, um ihn zu produzieren.

Arbeitete er nicht für den Kapitalisten, sondern für sich selbst, unabhängig, so müßte er, unter sonst gleichbleibenden Umständen, nach wie vor im Durchschnitt denselben aliquoten Teil des Tags arbeiten, um den Wert seiner Arbeitskraft zu produzieren, und dadurch die zu seiner eignen Erhaltung oder beständigen Reproduktion nötigen Lebensmittel zu gewinnen.

Da er in dem Teil des Arbeitstags, worin er den Tageswert der Arbeitskraft, sage 3 sh., produziert, nur ein Äquivalent für ihren vom Kapitalisten bereits gezahlten^{28a} Wert produziert, also durch den neu geschaffnen Wert nur den vorgeschossenen variablen Kapitalwert ersetzt, erscheint diese Produktion von Wert als bloße Reproduktion.

The Moore-Aveling translation says: "It is owing to this fact, that the production of the new value of three shillings takes the semblance of a mere reproduction." This translation is wrong. It not only

seems so, but in the bookkeeping of the capitalist and also the tax laws there is no difference between the value of the raw materials etc. which reappears in the product, and the value of the wages which

is replaced by new value and *not* transferred to the end product. On the level of the surface, the production of necessary means of subsistence has indeed the form of reproduction.

↑ Note that Marx uses the word "reproduction" although for the capitalist it seems to be a "transfer" of value: The period of the day during which the worker produces an equivalent of his wage takes for the capitalist the form of a mere *transfer* to the product of the value expended for the wage. This is a false interpretation of the actual process. The worker's wage is not transferred to the product, it is consumed by the worker, and the worker creates new value during the work-day which replaces it.

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^{28a} {Note added in the 3rd German edition. The author resorts here to the economic language in current use. It will be remembered that on p. 182 (present edition, p. 174) it was shown that in reality the laborer “advances” to the capitalist and not the capitalist to the laborer. F. E. }

^{28a} {Note zur 3. Aufl. Der Verfasser gebraucht hier die landläufige ökonomische Sprache. Man erinnert sich, daß auf S. 137 nachgewiesen, wie in Wirklichkeit nicht der Kapitalist dem Arbeiter, sondern der Arbeiter dem Kapitalisten „vorschießt“.—F.E. }

Next Marx introduces the terminology “necessary labor” for this. A long footnote justifies his re-use of the same word for a different concept.

That portion of the working-day, then, during which this reproduction takes place, I call “*necessary*” labor-time, and the labor expended during that time I call “*necessary*” labor²⁹.

Den Teil des Arbeitstags also, worin diese Reproduktion vorgeht, nenne ich notwendige Arbeitszeit, die während derselben verausgabte Arbeit notwendige Arbeit.²⁹

The footnote clarifies that this is a different meaning of the word “necessary labor” than that used earlier in the book. The word “necessary” is very fitting. The labor is necessary in two respects.

²⁹ In this work, we have, up to now, employed the term “necessary labor-time,” to designate the time necessary under given social conditions for the production of any commodity. Henceforward we use it to designate also the time necessary for the production of the particular commodity labor-power. The use of one and the same technical term in different senses is inconvenient, but in no science can it be altogether avoided. Compare, for instance, the higher with the lower branches of mathematics.

²⁹ Wir haben bisher in dieser Schrift das Wort „notwendige Arbeitszeit“ angewandt für die zur Produktion einer Ware überhaupt gesellschaftlich notwendige Arbeitszeit. Wir brauchen es von jetzt ab auch für die zur Produktion der spezifischen Ware Arbeitskraft notwendige Arbeitszeit. Der Gebrauch derselben termini technici in verschiedenem Sinn ist mißlich, aber in keiner Wissenschaft ganz zu vermeiden. Man vergleiche z.B. die höheren und niedren Teile der Mathematik.

Necessary, as regards the laborer, because independent of the particular social form of his labor; necessary, as regards capital, and the world of capitalists, because on the continued existence of the laborer depends their existence also.

Notwendig für den Arbeiter, weil unabhängig von der gesellschaftlichen Form seiner Arbeit. Notwendig für das Kapital und seine Welt, weil das beständige Dasein des Arbeiters ihre Basis.

↑ Interestingly, Marx uses here a system-transcending criterion: “Necessary for the worker, because independent of the particular social form of his labor.”

Question 807 Compare the concept of necessary labor introduced in chapter Nine with the socially necessary labor introduced in chapter One. Is it the same word used for two completely different concepts or are these concepts related somehow, and if so how?

Question 808 What is necessary labor and why is it called necessary? (Don’t confuse with the “socially necessary labor-time.”) Discuss the terms “paid” and “unpaid labor.”

↓ The next paragraph stresses that surplus-value is objectified surplus labor, i.e., it originates in labor performed in excess of that necessary for the maintenance of the worker.

During the second period of the labor-process, that in which his labor is no longer necessary labor, the workman, it is true, labors, expends labor-power; but his labor, being no longer necessary labor, he creates

231:1 Die zweite Periode des Arbeitsprozesses, die der Arbeiter über die Grenzen der notwendigen Arbeit hinaus schantz, kostet ihm zwar Arbeit, Verausgabung von Arbeitskraft, bildet aber keinen Wert für ihn.

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no value for himself. He creates surplus-value which, for the capitalist, has all the charms of a creation out of nothing. This portion of the working-day, I name surplus-labor-time, and to the labor expended during that time, I give the name of surplus-labor.

From the labor theory of value to a surplus-labor theory of surplus-value.

It is every bit as important, for a correct understanding of surplus-value, to conceive it as a mere congelation of surplus-labor-time, as nothing but materialised surplus-labor, as it is, for a proper comprehension of value, to conceive it as a mere congelation of so many hours of labor, as nothing but materialised labor.

↓ Surplus-labor exists in all class societies:

The essential difference between the various economic forms of society, between, for instance, a society based on slave-labor, and one based on wage-labor, lies only in the mode in which this surplus-labor is in each case extracted from the actual producer, the laborer.³⁰

³⁰ Herr Wilhelm Thucydides Roscher has found a mare's nest. He has made the important discovery that if, on the one hand, the formation of surplus-value, or surplus-produce, and the consequent accumulation of capital, is now-a-days due to the thrift of the capitalist, on the other hand, in the lowest stages of civilisation it is the strong who compel the weak to economise. (l.c., p. 78.) To economise what? Labor? Or superfluous wealth that does not exist? What is it that makes such men as Roscher account for the origin of surplus-value, by a mere rechauffé of the more or less plausible excuses by the capitalist, for his appropriation of surplus-value? It is, besides their real ignorance, their apologetic dread of a scientific analysis of value and surplus-value, and of obtaining a result, possibly not altogether palatable to the powers that be.

Sie bildet Mehrwert, der den Kapitalisten mit allem Reiz einer Schöpfung aus Nichts anlacht. Diesen Teil des Arbeitstags nenne ich Surplusarbeitszeit, und die in ihr verausgabte Arbeit: Mehrarbeit (suplus labour).

So entscheidend es für die Erkenntnis des Werts überhaupt, ihn als bloße Gerinnung von Arbeitszeit, als bloß vergegenständlichte Arbeit, so entscheidend ist es für die Erkenntnis des Mehrwerts, ihn als bloße Gerinnung von Surplusarbeitszeit, als bloß vergegenständlichte Mehrarbeit zu begreifen.

Nur die Form, worin diese Mehrarbeit dem unmittelbaren Produzenten, dem Arbeiter, abgepreßt wird, unterscheidet die ökonomischen Gesellschaftsformationen, z.B. die Gesellschaft der Sklaverei von der der Lohnarbeit.³⁰

³⁰ Mit wahrhaft Gottschedscher Genialität entdeckt Herr Wilhelm Thucydides Roscher, daß, wenn die Bildung von Mehrwert oder Mehrprodukt, und die damit verbundene Akkumulation, heurigen Tags der „Sparsamkeit“ des Kapitalisten geschuldet, der dafür „z.B. Zins verlangt“, dagegen „auf den niedrigsten Kulturstufen ... die Schwächeren von den Stärkeren zur Sparsamkeit gezwungen werden“. (l.c. p. 82, 78.) Zur Ersparung von Arbeit? oder nicht vorhandener überschüssiger Produkte? Neben wirklicher Ignoranz ist es apologetische Scheu vor gewissenhafter Analyse des Werts und Mehrwerts, und etwas verfänglich-polizeiwidrigem Resultat, die einen Roscher und Kons. zwingt, die mehr oder minder plausiblen Rechtfertigungsgründe des Kapitalisten für seine Aneignung vorhandener Mehrwerte in Entstehungsgründe des Mehrwerts zu verdrehen.

Question 809 Which justifications?

9.1.c. [Rate of Surplus-Value Expresses Rate of Exploitation]

Now the bridge between the surface and the underlying phenomena. Perhaps a better metaphor in the present case would be: the *opening* in the surface through which one can see an im-

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portant aspect of the underlying process. The rate of surplus-value, easily computed from empirical phenomena, is equal to the proportional division of the labor day into necessary and surplus labor (although there is no visible division of the labor process itself).

217:2/o Since, on the one hand, the values of the variable capital and of the labor-power purchased by that capital are equal, and the value of this labor-power determines the necessary portion of the working-day; and since, on the other hand, the surplus-value is determined by the surplus portion of the working-day, it follows that surplus-value bears the same ratio to variable capital, that surplus-labor does to necessary labor, or in other words, the rate of surplus-value (s/v) = (surplus-labor / necessary labor). Both ratios, s/v and surplus-labor/necessary-labor, express the same thing in different ways; in the one case by reference to materialised, incorporated labor, in the other by reference to living, fluent labor.

Two equations for the rate of surplus-value: s/v and surplus labor/necessary labor.

227:2 The rate of surplus-value is therefore an exact expression for the degree of exploitation of labor by capital, or of the laborer by the capitalist.^{30a}

s/v it is an empirically measurable phenomenon, which expresses what is going on underneath the surface, the exploitation of labor-power. By making the mathematical division one penetrates through the surface. ↓ However other aspects of exploitation are not as clearly visible on the surface.

^{30a} Although the rate of surplus-value is an exact expression for the degree of exploitation of labor-power, it is, in no sense, an expression for the absolute amount of exploitation. For example, if the necessary labor 5 hours and the surplus-labor = 5 hours, the degree of exploitation is 100%. The amount of exploitation is here measured by 5 hours. If, on the other hand, the necessary labor = 6 hours and the surplus-labor = 6 hours, the degree of exploitation remains, as before, 100%, while the actual amount of exploitation has increased 20%, namely from five hours to six.

↓ Rate of exploitation higher than profit rate.

We assumed in our example, that the value of the product £410 const. + £90 var. + £90 surpl., and that the capital advanced = £500. Since the surplus-value = £90, and the advanced capital = £500, we should, accord-

231:2/o Da der Wert des variablen Kapitals = Wert der von ihm gekauften Arbeitskraft, da der Wert dieser Arbeitskraft den notwendigen Teil des Arbeitstags bestimmt, der Mehrwert seinerseits aber bestimmt ist durch den überschüssigen Teil des Arbeitstags, so folgt: Der Mehrwert verhält sich zum variablen Kapital, wie die Mehrarbeit zur notwendigen, oder die Rate des Mehrwerts $m/v = (\text{Mehrarbeit}) / (\text{Notwendige Arbeit})$. Beide Proportionen drücken dasselbe Verhältnis in verschiedner Form aus, das eine Mal in der Form vergegenständlichter, das andre Mal in der Form flüssiger Arbeit.

232:1 Die Rate des Mehrwerts ist daher der exakte Ausdruck für den Exploitationsgrad der Arbeitskraft durch das Kapital oder des Arbeiters durch den Kapitalisten.^{30a}

^{30a} Note zur 2. Ausg. Obgleich exakter Ausdruck für den Exploitationsgrad der Arbeitskraft, ist die Rate des Mehrwerts kein Ausdruck für die absolute Größe der Exploitation. Z.B. wenn die notwendige Arbeit = 5 Stunden und die Mehrarbeit = 5 Stunden, ist der Exploitationsgrad = 100%. Die Größe der Exploitation ist hier gemessen durch 5 Stunden. Ist dagegen die notwendige Arbeit = 6 Stunden und die Mehrarbeit = 6 Stunden, so bleibt der Exploitationsgrad von 100% unverändert, während die Größe der Exploitation um 20% wächst, von 5 auf 6 Stunden.

232:2 Nach unsrer Annahme war der Wert des Produkts = 410 Pfd.St. + 90 Pfd. St. + 90, das vorgeschobne Kapital = 500 Pfd.St. Da der Mehrwert = 90 und das vorgeschobne Kapital = 500, würde man nach

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ing to the usual way of reckoning, get as the rate of surplus-value (generally confounded with rate of profits) 18%, a rate so low as possibly to cause a pleasant surprise to Mr. Carey and other harmonisers. But in truth, the rate of surplus-value is not equal to s/C or $s/(c+v)$: thus it is not 90/500 but 90/90 or 100%, which is more than five times the apparent degree of exploitation.

der gewöhnlichen Art der Berechnung herausbekommen, daß die Rate des Mehrwerts (die man mit der Profitrate verwechselt) = 18%, eine Verhältniszahl, deren Niedrigkeit Herrn Carey und andre Harmoniker rühren möchte. In der Tat aber ist die Rate des Mehrwerts nicht $= m/C$ oder $m/(c+m)$, sondern $= m/v$, also nicht 90/500, sondern 90/90 = 100%, mehr als das Fünffache des scheinbaren Exploitationsgrads.

Question 810 *What is the rate of profits? Which other factors besides the exploitation of the workers determine the rate of profits? (This question goes somewhat beyond the scope of the reading assignments.)*

Question 811 *In what sense is the rate of surplus-value “generally confounded with the rate of profits” as Marx says in 218:2?*

↓ In the second half of the paragraph Marx emphasizes how extraordinary this “peek” below the surface is.

Although, in the case we have supposed, we are ignorant of the actual length of the working-day, and of the duration in days or weeks of the labor-process, as also of the number of laborers employed, yet the rate of surplus-value s/v accurately discloses to us, by means of its equivalent expression, surplus-labor/necessary labor, the relation between the two parts of the working-day. This relation is here one of equality, the rate being 100%. Hence, it is plain, the laborer, in our example, works one half of the day for himself, the other half for the capitalist.

Obgleich wir nun im gegebenen Fall die absolute Größe des Arbeitstags nicht kennen, auch nicht die Periode des Arbeitsprozesses (Tag, Woche usw.), endlich nicht die Anzahl der Arbeiter, die das variable Kapital von 90 Pfd.St. gleichzeitig in Bewegung setzt, zeigt uns die Rate des Mehrwerts m/v durch ihre Konvertibilität in (Mehrarbeit) / (Notwendige Arbeit) genau das Verhältnis der zwei Bestandteile des Arbeitstags zueinander. Es ist 100%. Also arbeitete der Arbeiter die eine Hälfte des Tags für sich und die andre für den Kapitalisten.

↑ Although many details about the working day are unknown to us, the empirically accessible s/v reveals exactly the relative magnitude of the two portions of the working day.

Question 812 *What is the rate of surplus-value? In which respect can it be seen as an indicator of the exploitation of the worker?*

9.1.d. [Example: Manchester Cotton Spinning Mill]

To conclude this first section, Marx gives a cookbook recipe how to calculate the rate of surplus-value, and then two detailed examples.

The method of calculating the rate of surplus-value is therefore, shortly, as follows. We take the total value of the product and put the constant capital which merely re-appears in it, equal to zero. What remains, is the only value that has, in the pro-

232:3 Die Methode zur Berechnung der Rate des Mehrwerts ist also kurzgefaßt diese: Wir nehmen den ganzen Produktenwert und setzen den darin nur wiedererscheinen-den konstanten Kapitalwert gleich Null. Die übrigbleibende Wertsumme ist das einzige

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cess of producing the commodity, been actually created. If the amount of surplus-value be given, we have only to deduct it from this remainder, to find the variable capital. And *vice versa*, if the latter be given, and we require to find the surplus-value. If both be given, we have only to perform the concluding operation, viz., to calculate s/v , the ratio of the surplus-value to the variable capital.

Since an important aspect of exploitation is clearly visible on the surface, Marx considered it important that people should be able to make this calculation.

Though the method is so simple, yet it may not be amiss, by means of a few examples, to exercise the reader in the application of the novel principles underlying it.

Example of a spinning mill.

First we will take the case of a spinning mill containing 10,000 mule spindles, spinning No. 32 yarn from American cotton, and producing 1 lb. of yarn weekly per spindle. We assume the waste to be 6%: under these circumstances 10,600 lbs. of cotton are consumed weekly, of which 600 lbs. go to waste. The price of the cotton in April, 1871, was 7 3/4 d. per lb.; the raw material therefore costs in round numbers £342. The 10,000 spindles, including preparation-machinery, and motive power, cost, we will assume, £1 per spindle, amounting to a total of £10,000. The wear and tear we put at 10%, or £1,000 yearly = £20 weekly. The rent of the building we suppose to be £300 a year, or £6 a week. Coal consumed (for 100 horse-power indicated, at 4 lbs. of coal per horse-power per hour during 60 hours, and inclusive of that consumed in heating the mill), 11 tons a week at 8s. 6 d. a ton, amounts to about £4 1/2 a week: gas, £1 a week, oil, etc., £4 1/2 a week. Total cost of the above auxiliary materials, £10 weekly. Therefore the constant portion of the value of the week's product is £378. Wages amount to £52 a week. The price of the yarn is 12 1/4 d. per lb. which gives for the value of 10,000 lbs. the sum of £510.

im Bildungsprozeß der Ware wirklich erzeugte Wertprodukt. Ist der Mehrwert gegeben, so ziehn wir ihn von diesem Wertprodukt ab, um das variable Kapital zu finden. Umgekehrt, wenn letzteres gegeben und wir den Mehrwert suchen. Sind beide gegeben, so ist nur noch die Schlußoperation zu verrichten, das Verhältnis des Mehrwerts zum variablen Kapital, m/v , zu berechnen.

233:1 So einfach die Methode, scheint es doch passend, den Leser in die ihr zu Grunde liegende und ihm ungewohnte Anschauungsweise durch einige Beispiele einzuexercieren.

233:2 Zunächst das Beispiel einer Spinnerei von 10 000 Mulespindeln, die Nr. 32 Garn aus amerikanischer Baumwolle spinnend und 1 Pfund Garn wöchentlich per Spindel produziert. Der Abfall ist 6%. Also werden 10 600 Pfund Baumwolle wöchentlich in 10 000 Pfund Garn und 600 Pfund Abfall verarbeitet. Im April 1871 kostet diese Baumwolle 7 3/4 d. per Pfund, also für 10 600 Pfund rund 342 Pfd.St. Die 10 000 Spindeln, inklusive Vorspinnmaschine und Dampfmaschine, kosten 1 Pfd.St. per Spindel, also 10 000 Pfd.St. Ihr Verschleiß beträgt 10% = 1000 Pfd.St. oder wöchentlich 20 Pfd.St. Die Miete des Fabrikgebäudes ist 300 Pfd.St. oder 6 Pfd.St. per Woche. Kohlen (4 Pfund per Stunde und Pferdekraft, auf 100 Pferdekraft (Indikator), und 60 Stunden per Woche inklusive Heizung des Gebäudes) 11 tons per Woche, zu 8 sh. 6 d. die Tonne, kosten rund 4 1/2 Pfd. St. per Woche; Gas 1 Pfd.St. per Woche, Öl 4 1/2 Pfd.St. per Woche, also alle Hilfsstoffe 10 Pfd.St. per Woche. Also ist der konstante Wertteil 378 Pfd.St. per Woche. Der Arbeitslohn beträgt 52 Pfd.St. per Woche. Der Garnpreis ist 12 1/4 d. per Pfund oder 10 000 Pfd. = 510 Pfd.St., der Mehrwert also $510 - 430 = 80$ Pfd.St. Wir setzen den

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The surplus-value is therefore in this case £510 - £430 = £80. We put the constant part of the value of the product = 0, as it plays no part in the creation of value. There remains £132 as the weekly value created, which = £52 var. + £80 surpl. The rate of surplus-value is therefore $80/52 = 153\frac{11}{13}\%$. In a working-day of 10 hours with average labor the result is: necessary labor = $3\frac{31}{33}$ hours, and surplus-labor = $6\frac{2}{33}$.³¹

³¹ The above data, which may be relied upon, were given me by a Manchester spinner. In England the horse-power of an engine was formerly calculated from the diameter of its cylinder, now the actual horse-power shown by the indicator is taken.

konstanten Wertteil von 378 Pfd.St. = 0, da er in der wöchentlichen Wertbildung nicht mitspielt. Bleibt das wöchentliche Wertprodukt von 132 = 52 + 80 Pfd.St. Die Rate des Mehrwerts also = $80/52 = 153\frac{11}{13}\%$. Bei zehnstündigem durchschnittlichem Arbeitstag ergibt dies: Notwendige Arbeit = $3\frac{31}{33}$ Stunden und Mehrarbeit = $6\frac{2}{33}$ Stunden.³¹

³¹ Note zur 2. Ausg. Das in der ersten Ausgabe gegebne Beispiel einer Spinnerei für das Jahr 1860 enthielt einige faktische Irrtümer. Die im Text gegebenen durchaus genauen Daten sind mir von einem Manchester Fabrikanten geliefert.— Es ist zu bemerken, daß in England die alte Pferdekraft nach dem Durchschnitt des Zylinders berechnet wurde, die neue nach der wirklichen Kraft zählt, die der Indikator anzeigt.

To follow these calculations note that each £ has 20 shillings, and each shilling 12 d. (pence). The costs of producing 10,000 lbs. of yarn split up into the following components:

- Constant capital:
 - Raw material cotton: 10,600 lbs of cotton at 7 3/4 d. per lb, whose total cost is £ 342 plus 5 shillings plus 10 d., Marx takes the round number £ 342.
 - Depreciation of the spindles: The 10,000 spindles cost £ 1 each. They last 10 years, and Marx assumes 50 weeks per year. This gives a depreciation of altogether £ 20 each week.
 - Rent of the building: £300 each year, gives £ 6 each week.
 - Coal: 4 lbs for every hour and horse power: 60 hours each week, 100 horse powers, gives 24,000 lbs. Marx says this is 11 tons, how many lbs are in a ton? This depends on whether it is a long ton or a short ton. A long ton is 2240 lbs. A short ton is 2000 lbs. 24,00 lbs = 10.714286 long tons or 12 short tons. Presumably Marx meant long tons and the number 11 is rounded, the exact number would be 10.714286.
 - Price of coal is 8 sh 6 d the ton (which is 102 d the ton); for 11 tons it would be 1122 d, or £ 4 plus 13 sh plus 6 d. If we take the exact number of 10.714286 tons it would be 1093 d, or £ 4 plus 11 sh plus 1 d. Marx takes the round number of £ 4 1/2, or £ 4 plus 10 sh plus 0 d.
 - Gas: £ 1 each week.
 - Oil: £ 4 1/2 each week.

All these constant cost elements together give £ 342 + 20 + 6 + 10 = 378.

- Variable capital: Direct labor cost is £ 52 per week.
- The sales price of the yarn is 12 1/4 d., therefore the total sales amount is £ 510 plus 8 shillings plus 4 d., Marx rounds it to £ 510.

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Therefore we have $\pounds 378c + \pounds 52v + \pounds 80s = \pounds 510$. Rate of surplus-value is $\frac{s}{v} = \frac{80}{52} = \frac{20}{13}$. Therefore 13/33 of the day is necessary labor and 20/33 of the day is surplus labor. If the day is 10 hours long, this gives 3 hours and 56 4/11 minutes of necessary labor and 6 hours and 3 7/11 minutes surplus labor.

↓ Is there an error in the wheat example? What is the relationship between a bushel and a quarter? Arithmetic gives: if 22 bushels cost £ 11, then 1 bushel costs 10 shillings. Since Marx says the price is 80 sh. per quarter, this could only be true if 1 quarter is 8 bushels. This is true according to the Winchester measures.

One more example. Jacob gives the following calculation for the year 1815. Owing to the previous adjustment of several items it is very imperfect; nevertheless for our purpose it is sufficient. In it he assumes the price of wheat to be 80 s. a quarter, and the average yield per acre to be 22 bushels.

234:1 Jacob gibt für das Jahr 1815, bei Annahme eines Weizenpreises von 80 sh. per Quarter und eines Durchschnittsertrags von 22 Buschels per acre, so daß der acre 11 Pfd.St. einbringt, folgende durch vorherige Kompensation verschiedener Posten sehr mangelhafte, aber für unsren Zweck genügende Rechnung.

Value Produced Per Acre		
Seed (wheat)	1 Pfd.St.	9 sh.
Manure	2 Pfd.St.	10 sh.
Wages	3 Pfd.St.	10 sh.
Summa:	7 Pfd.St.	9 sh.
Tithes, Rates, Taxes	1 Pfd.St.	1 sh.
Rent	1 Pfd.St.	8 sh.
Farmer's Profit and Interest	1 Pfd.St.	2 sh.
Summa:	3 Pfd.St.	11 sh.

Wertproduktion per acre		
Samen (Weizen)	1 Pfd.St.	9 sh.
Dünger	2 Pfd.St.	10 sh.
Arbeitslohn	3 Pfd.St.	10 sh.
Summa:	7 Pfd.St.	9 sh.
Zehnten, Rates, Taxes	1 Pfd.St.	1 sh.
Rente	1 Pfd.St.	8 sh.
Pächters Profit u. Zins	1 Pfd.St.	2 sh.
Summa:	3 Pfd.St.	11 sh.

The Moore-Aveling translation says 8 s. per acre, but Alan Sievers says it should be 80 s. per acre as in the German.

The surplus-value (always under the assumption that the price of the product equals its value) is here distributed under the various captions of profit, interest, rent, etc. We have nothing to do with these in detail; we simply add them together, and the sum is a surplus-value of £3 11s. 0d. The sum of £3 19s. 0d., paid for seed and manure, is con-

234:2 Der Mehrwert, stets unter der Voraussetzung, daß Preis des Produkts = seinem Wert, wird hier unter die verschiedenen Rubriken, Profit, Zins, Zehnten usw. verteilt. Diese Rubriken sind uns gleichgültig. Wir addieren sie zusammen und erhalten einen Mehrwert von 3 Pfd.St. 11 sh. Die 3 Pfd. St. 19 sh. für Samen und Dünger setzen

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stant capital, and we put it equal to zero. There is left the sum of £3 10s. 0d., which is the variable capital advanced: and we see that a new value of £3 10s. 0d + £3 11s. 0d. has been produced in its place. Therefore $s/v = £3\ 11s.\ 0d. / £3\ 10s.\ 0d.$, giving a rate of surplus-value of more than 100%. The laborer employs more than one half of his working-day in producing the surplus-value, which different persons, under different pretexts, share amongst themselves.^{31a}

^{31a} The calculations given in the text are intended merely as illustrations. We have in fact assumed that prices = values. We shall, however, see, in Book III., that even average prices cannot be equated to values in this very simple manner.

↑ Marx refers here to the equalization of profit rates.

Question 813 *Where in Capital I does Marx refer to the equalization of profit rates, and where does he refer to the tendency of the profit rates to fall?*

Question 814 *Why is it incorrect to express the rate of exploitation by the proportion surplus-labor/working-day?*

wir als konstanten Kapitalteil gleich Null. Bleibt vorgeschossenes variables Kapital von 3 Pfd.St. 10 sh., an dessen Stelle ein Neuwert von 3 Pfd.St. 10 sh. + 3 Pfd.St. 11 sh. produziert worden ist. Also beträgt $m/v = (3\ \text{Pfd.St. } 11\ \text{sh.}) / (3\ \text{Pfd.St. } 10\ \text{sh.})$, mehr als 100%. Der Arbeiter verwendet mehr als die Hälfte seines Arbeitstags zur Produktion eines Mehrwerts, den verschiedene Personen auf verschiedene Verwände hin unter sich verteilen.^{31a}

^{31a} Die gegebenen Rechnungen gelten nur als Illustration. Es wird nämlich unterstellt, daß die Preise = den Werten. Man wird in Buch III sehn, daß diese Gleichsetzung, selbst für die Durchschnittspreise, sich nicht in dieser einfachen Weise macht.

9.2. Representation of the Components Parts of the Value of the Product by Proportional Parts of the Product

↓ Marx uses here the same numerical example as in chapter Seven, 204:1/o.

Let us now return to the example by which we were shown how the capitalist converts money into capital. The necessary labor of his spinner was 6 hours, ditto the surplus-labor, the degree of exploitation of labor-power was therefore 100%.

The product of a working-day of 12 hours is 20 lbs. of yarn, having a value of 30s. No less than 8/10ths of this value, or 24s., is due to mere re-appearance in it, of the value of the means of production (20 lbs. of cotton, value 20s., and spindle worn away, 4s.): it is therefore constant capital. The remaining 2/10ths or 6s. is the new value created during the spinning process: of this one half replaces the value of the day's labor-power, or the variable capital,

234:3 Kehren wir nun zum Beispiel zurück, das uns zeigte, wie der Kapitalist aus Geld Kapital macht. Die notwendige Arbeit seines Spinners betrug 6 Stunden, die Mehrarbeit desgleichen, der Exploitationsgrad der Arbeitskraft daher 100%.

234:4/o Das Produkt des zwölfstündigen Arbeitstags sind 20 Pfd. Garn zum Wert von 30 sh. Nicht weniger als 8/10 dieses Garnwerts (24 sh.) sind gebildet durch den nur wieder erscheinenden Wert der verzehrten Produktionsmittel (20 Pfd. Baumwolle zu 20 sh., Spindel usw. zu 4 sh.) oder bestehn aus konstantem Kapital. Die übrigen 2/10 sind der während des Spinnprozesses entstandne Neuwert von 6 sh., wovon eine Hälfte den vorgeschossenen Tageswert der

9.2. Representation of Value of Product

the remaining half constitutes a surplus-value of 3s. The total value then of the 20 lbs. of yarn is made up as follows:

30s. value of yarn = 24s. const. + 3s. var. + 3s. surpl.

Arbeitskraft ersetzt oder das variable Kapital, und die andre Hälfte eine Mehrwert von 3 sh. bildet. Der Gesamtwert der 20 Pfd. Garn ist also folgendermaßen zusammengesetzt:

Garnwert von 30 sh. = 24 sh. + 3 sh. + 3 sh.

The comma after "oder das variable Kapital" is in the 2nd

edition MEGA, but not in MEW.
TODO Check the 4th edition

MEGA.

↓ This division of the value can be represented by a division of the product:

Since the whole of this value is contained in the 20 lbs. of yarn produced, it follows that the various component parts of this value can be represented as being contained respectively in corresponding parts of the product.

If the value of 30s. is contained in 20 lbs. of yarn, then 8/10ths of this value, or the 24s. that form its constant part, is contained in 8/10ths of the product or in 16 lbs. of yarn. Of the latter, 13 1/3 lbs. represent the value of the raw material, the 20s. worth of cotton spun, and 2 2/3 lbs. represent the 4s. worth of spindle, etc., worn away in the process.

Hence the whole of the cotton used up in spinning the 20 lbs. of yarn, is represented by 13 1/3 lbs. of yarn. This latter weight of yarn contains, it is true, by weight, no more than 13 1/3 lbs. of cotton, worth 13 1/3 shillings; but the 6 2/3 shillings additional value contained in it are the equivalent for the cotton consumed in spinning the remaining 6 2/3 lbs. of yarn. The effect is the same as if these 6 2/3 lbs. of yarn contained no cotton at all, and the whole 20 lbs. of cotton were concentrated in the 13 1/3 lbs. of yarn. The latter weight, on the other hand, does not contain an atom either of the value of the auxiliary materials and implements, or of the value newly created in the process.

In the same way, the 2 2/3 lbs. of yarn, in which the 4s., the remainder of the constant capital, is embodied, represents nothing but the value of the auxiliary materials and in-

235:1 Da dieser Gesamtwert sich in dem Gesamtprodukt von 20 Pfd. Garn darstellt, müssen auch die verschiedenen Wertelemente in proportionellen Teilen des Produkts darstellbar sein.

235:2 Existiert ein Garnwert von 30 sh. in 20 Pfd. Garn, so 8/10 dieses Werts, oder sein konstanter Teil von 24 sh., in 8/10 des Produkts, oder in 16 Pfd. Garn. Davon stellen 13 1/3 Pfd. den Wert des Rohmaterials dar, der versponnenen Baumwolle zu 20 sh., und 2 2/3 Pfd. den Wert der verzehrten Hilfsstoffe und Arbeitsmittel, Spindel usw. zu 4 sh.

235:3 13 1/3 Pfund Garn stellen also alle im Gesamtprodukt vom 20 Pfd. Garn versponnene Baumwolle vor, das Rohmaterial des Gesamtprodukts, aber auch weiter nichts. In ihnen stecken zwar nur 13 1/3 Pfd. Baumwolle zum Wert von 13 1/3 sh., aber ihr zusätzlicher Wert von 6 2/3 sh. bildet ein Äquivalent für die in den andren 6 2/3 Pfd. Garn versponnene Baumwolle. Es ist, als ob letzteren die Wolle ausgerupft und alle Wolle des Gesamtprodukts in 13 1/3 Pfd. Garn zusammengestopft wäre. Sie enthalten dagegen jetzt kein Atom des Werts der verbrauchten Hilfsstoffe und Arbeitsmittel noch des im Spinnprozeß geschaffnen Neuwerts.

235:4 Ebenso stellen weitere 2 2/3 Pfd. Garn, worin der Rest des konstanten Kapitals (= 4 sh.) steckt, nichts dar außer dem Wert der im Gesamtprodukt von 20 Pfd.

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struments of labor consumed in producing the 20 lbs. of yarn.

We have, therefore, arrived at this result: although eight-tenths of the product, or 16 lbs. of yarn, is, in its character of an article of utility, just as much the fabric of the spinner's labor, as the remainder of the same product, yet when viewed in this connexion, it does not contain, and has not absorbed any labor expended during the process of spinning. It is just as if the cotton had converted itself into yarn, without help; as if the shape it had assumed was mere trickery and deceit: for so soon as our capitalist sells it for 24s., and with the money replaces his means of production, it becomes evident that this 16 lbs. of yarn is nothing more than so much cotton and spindle-waste in disguise.

On the other hand, the remaining 2/10ths of the product, or 4 lbs. of yarn, represent nothing but the new value of 6s., created during the 12 hours' spinning process. All the value transferred to those 4 lbs. from the raw material and instruments of labor consumed, was, so to say, intercepted in order to be incorporated in the 16 lbs. first spun. In this case, it is as if the spinner had spun 4 lbs. of yarn out of air, or, as if he had spun them with the aid of cotton and spindles, that, being the spontaneous gift of Nature, transferred no value to the product.

Of this 4 lbs. of yarn, in which the whole of the value newly created during the process, is condensed, one half represents the equivalent for the value of the labor consumed, or the 3s. variable capital, the other half represents the 3s. surplus-value.

Since 12 working-hours of the spinner are embodied in 6s., it follows that in yarn of the value of 30s. there must be embodied 60 working-hours. And this quantity of labor-time does in fact exist in the 20 lbs. of yarn; for in 8/10ths or 16 lbs. there are materialised the 48 hours of labor expended, before the commencement of the spinning process, on the means of production; and in the remaining 2/10ths or 4 lbs. there are

Garn vernutzten Hilfsstoffe und Arbeitsmittel.

235:5 Acht Zehntel des Produkts, oder 16 Pfd. Garn, obgleich leiblich, als Gebrauchs-wert betrachtet, als Garn, ebensosehr Gebilde der Spinnarbeit wie die restierenden Produktteile, enthalten daher in diesem Zusammenhang keine Spinnarbeit, keine während des Spinnprozesses selbst eingesaugte Arbeit. Es ist, als ob sie sich ohne Spinnen in Garn verwandelt hätten und als wäre ihre Garngestalt reiner Lug und Trug. In der Tat, wenn der Kapitalist sie verkauft zu 24 sh. und damit seine Produktionsmittel zurückkauft, zeigt sich, daß 16 Pfd. Garn—nur verkleidete Baumwolle, Spindel, Kohle usw. sind.

236:1 Umgekehrt stellen die übrigbleibenden 8/10 des Produkts oder 4 Pfd. Garn jetzt nichts dar außer dem im zwölfstündigen Spinnprozeß produzierten Neuwert von 6 sh. Was vom Wert der vernutzten Rohmaterialien und Arbeitsmittel in ihnen steckte, ward bereits ausgeweidet und den ersten 16 Pfd. Garn einverleibt. Die in 20 Pfd. Garn in der Luft gewirkt oder in Baumwolle und mit Spindeln, die ohne Zutat menschlicher Arbeit, von Natur vorhanden, dem Produkt keinen Wert zusetzen.

236:2 Von den 4 Pfd. Garn, worin so das ganze Wertprodukt des täglichen Spinnprozesses existiert, stellt die eine Hälfte nur den Ersatzwert der vernutzten Arbeitskraft dar, also das variable Kapital von 3 sh., die anderen 2 Pfd. Garn nur den Mehrwert von 3 sh.

236:3 Da 12 Arbeitsstunden des Spinners sich in 6 sh. vergegenständlichen, sind im Garnwert von 30 sh. 60 Arbeitsstunden vergegenständlicht. Sie existieren in 20 Pfd. Garn, wovon 8/10 oder 16 Pfd. die Materiatur von 48 vor dem Spinnprozeß vergangenen Arbeitsstunden sind, nämlich der in den Produktionsmitteln des Garns vergegenständlichten Arbeit, 2/10 oder 4 Pfd. dagegen die Materiatur der im Spinnprozeß

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materialised the 12 hours' work done during the process itself.

On a former page we saw that the value of the yarn is equal to the sum of the new value created during the production of that yarn plus the value previously existing in the means of production. It has now been shown how the various component parts of the value of the product, parts that differ functionally from each other, may be represented by corresponding proportional parts of the product itself.

To split up in this manner the product into different parts, of which one represents only the labor previously spent on the means of production, or the constant capital, another, only the necessary labor spent during the process of production, or the variable capital, and another and last part, only the surplus-labor expended during the same process, or the surplus-value; to do this, is, as will be seen later on from its application to complicated and hitherto unsolved problems, no less important than it is simple.

↓ This division of the value of the product can not only be represented by parts of the finished product, but also by parts of the work week.

In the preceding investigation we have treated the total product as the final result, ready for use, of a working-day of 12 hours. We can however follow this total product through all the stages of its production; and in this way we shall arrive at the same result as before, if we represent the partial products, given off at the different stages, as functionally different parts of the final or total product.

↑ Note that there is more text in the English than the German!

The spinner produces in 12 hours 20 lbs. of yarn, or in 1 hour $1\frac{2}{3}$ lbs.; consequently he produces in 8 hours $13\frac{2}{3}$ lbs., or a partial product equal in value to all the cotton that is spun in a whole day. In like manner the partial product of the next period of 1 hour and 36 minutes, is $2\frac{2}{3}$ lbs. of yarn: this represents the value of the instruments of labor that are consumed in 12 hours. In

selbst verausgabten 12 Arbeitsstunden.

236:4 Früher sahen wir, daß der Garnwert gleich der Summe des in seiner Produktion erzeugten Neuwerts plus der bereits in seinen Produktionsmitteln präexistierenden Werte ist. Jetzt hat sich gezeigt, wie die funktionell oder begrifflich verschiedenen Bestandteile des Produktenwerts in proportionellen Teilen des Produkts selbst darstellbar sind.

236:5 Diese Zerfällung des Produkts—des Resultats des Produktionsprozesses—in ein Quantum Produkt, das nur die in den Produktionsmitteln enthaltne Arbeit oder den konstanten Kapitalteil, ein andres Quantum, das nur die im Produktionsprozeß zugesetzte notwendige Arbeit oder den variablen Kapitalteil, und ein letztes Quantum Produkt, das nur die im selben Prozeß zugesetzte Mehrarbeit oder den Mehrwert darstellt, ist ebenso einfach als wichtig, wie ihre spätre Anwendung auf verwickelte und noch ungelöste Probleme zeigen wird.

236:6 Wir betrachteten eben das Gesamtprodukt als fertiges Resultat des zwölfstündigen Arbeitstags. Wir können es aber auch in seinem Entstehungsprozeß begleiten, und dennoch die Teilprodukte als funktionell unterschiedne Produktenteile darstellen.

236:7/o Der Spinner produziert in 12 Stunden 20 Pfd. Garn, daher in einer Stunde $1\frac{2}{3}$ und in 8 Stunden $13\frac{1}{3}$ Pfd., also ein Teilprodukt vom Gesamtwert der Baumwolle, die während des ganzen Arbeitstags versponnen wird. In derselben Art und Weise ist das Teilprodukt der folgenden Stunde und 36 Minuten = $2\frac{2}{3}$ Pfd. Garn und stellt daher den Wert der während der 12 Arbeits-

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the following hour and 12 minutes, the spinner produces 2 lbs. of yarn worth 3 shillings, a value equal to the whole value he creates in his 6 hours' necessary labor. Finally, in the last hour and 12 minutes he produces another 2 lbs. of yarn, whose value is equal to the surplus-value, created by his surplus-labor during half a day. This method of calculation serves the English manufacturer for every-day use; it shows, he will say, that in the first 8 hours, or $\frac{2}{3}$ of the working-day, he gets back the value of his cotton; and so on for the remaining hours. It is also a perfectly correct method: being in fact the first method given above with this difference, that instead of being applied to space, in which the different parts of the completed product lie side by side, it deals with time, in which those parts are successively produced.

stunden vernutzten Arbeitsmittel dar. Ebenso produziert der Spinner in der folgenden Stunde und 12 Minuten 2 Pfd. Garn = 3 sh., ein Produktenwert gleich dem ganzen Wertprodukt, das er in 6 Stunden notwendiger Arbeit schafft. Endlich produziert er in den letzten $\frac{6}{5}$ Stunden ebenfalls 2 Pfd. Garn, deren Wert gleich dem durch seine halbtägige Mehrarbeit erzeugten Mehrwert. Diese Art Berechnung dient dem englischen Fabrikanten zum Hausgebrauch, und er wird z.B. sagen, daß er in den ersten 8 Stunden oder $\frac{2}{3}$ des Arbeitstags seine Baumwolle herauschlägt usw. Man sieht, die Formel ist richtig, in der Tat nur die erste Formel, übersetzt aus dem Raum, wo die Teile des Produkts fertig nebeneinander liegen, in die Zeit, wo sie aufeinander folgen.

↓ But this division of the workday can be maliciously misinterpreted (and the next section gives an example of such a mis-interpretation).

But it can also be accompanied by very barbarian notions, more especially in the heads of those who are as much interested, practically, in the process of making value beget value, as they are in misunderstanding that process theoretically. Such people may get the notion into their heads, that our spinner, for example, produces or replaces in the first 8 hours of his working-day the *value* of the cotton; in the following hour and 36 minutes the *value* of the instruments of labor worn away; in the next hour and 12 minutes the *value* of the wages; and that he devotes to the production of surplus-value for the manufacturer, only that well known "last hour." In this way the poor spinner is made to perform the two-fold miracle not only of producing cotton, spindles, steam-engine, coal, oil, etc., at the same time that he spins with them, but also of turning one working-day into five; for, in the example we are considering, the production of the raw material and instruments of labor demands four working-days of twelve hours each, and their conversion into yarn requires another such day.

Die Formel kann aber auch von sehr barbarischen Vorstellungen begleitet sein, namentlich in Köpfen, die ebenso praktisch im Verwertungsprozeß interessiert sind, als sie ein Interesse haben, ihn theoretisch mißzuverstehn. So kann sich eingebildet werden, daß unser Spinner z.B. in den ersten 8 Stunden seines Arbeitstags den Wert der Baumwolle, in der folgenden Stunde und 36 Minuten den Wert der verzehrten Arbeitsmittel, in der folgenden Stunde und 12 Minuten den Wert des Arbeitslohns produziert oder ersetzt, und nur die vielberühmte „letzte Stunde“ dem Fabrikherrn, der Produktion von Mehrwert widmet. Dem Spinner wird so das doppelte Wunder aufgebürdet, Baumwolle, Spindel, Dampfmaschine, Kohle, Öl usw. in demselben Augenblick zu produzieren, wo er mit ihnen spinnt, und aus einem Arbeitstag von gegebenem Intensitätsgrad fünf solcher Tage zu machen. In unsrem Fall nämlich erfordert die Produktion des Rohmaterials und der Arbeitsmittel $\frac{24}{6} = 4$ zwölfstündige Arbeitstage und ihre Verwandlung in Garn einen andren zwölfstün-

That the love of lucre induces an easy belief in such miracles, and that sycophant doctrinaires are never wanting to prove them, is vouched for by the following incident of historical celebrity.

digen Arbeitstag. Daß die Raubgier solche Wunder glaubt und nie den doktrinären Sykophanten mißt, der sie beweist, zeige nun ein Beispiel von historischer Berühmtheit.

9.3. Senior's 'Last Hour'

Section 9.3 illustrates how thoroughly Marx analyses even such a blatantly false statement as Senior's. Marx is not satisfied with counterposing a correct statement to it, but he follows Senior's logic on its own terms, shows that it leads to a contradiction, and the resolution of this contradiction is the correction of Senior's logic. Marx tells it in a style similar to a fairy tale or an Aesopian fable:

One fine morning, in the year 1836, Nassau W. Senior, who may be called the bel esprit of English economists, well known, alike for his economic "science," and for his beautiful style, was summoned from Oxford to Manchester, to learn in the latter place, the Political Economy that he taught in the former. The manufacturers elected him as their champion, not only against the newly passed Factory Act, but against the still more menacing Ten-hours' agitation. With their usual practical acuteness, they had found out that the learned Professor "wanted a good deal of finishing;" it was this discovery that caused them to write for him. On his side the Professor has embodied the lecture he received from the Manchester manufacturers, in a pamphlet, entitled: "Letters on the Factory Act, as it affects the cotton manufacture." London, 1837. Here we find, amongst others, the following edifying passage:

237:1 An einem schönen Morgen des Jahres 1836 wurde der wegen seiner ökonomischen Wissenschaft und seines schönen Stils berufene Nassau W. Senior, gewissermaßen der Clauren unter den englischen Ökonomen, von Oxford nach Manchester zitiert, um hier politische Ökonomie zu lernen, statt sie in Oxford zu lehren. Die Fabrikanten erkoren ihn zum Preisfechter gegen den neulich erlassenen Factory Act und die darüber noch hinausstrebende Zehnstundenagitation. Mit gewohntem praktischen Scharfsinn hatten sie erkannt, daß der Herr Professor „wanted a good deal of finishing“. Sie verschrieben ihn daher nach Manchester. Der Herr Professor seinerseits hat die zu Manchester von den Fabrikanten erhaltene Lektion stilisiert in dem Pamphlet: „Letters on the Factory Act, as it affects the cotton manufacture“, London 1837. Hier kann man u.a. folgendes Erbauliche lesen:

Under the present law, no mill in which persons under 18 years of age are employed, ... can be worked more than 11 1/2 hours a day, that is 12 hours for 5 days in the week, and nine on Saturday. Now the following analysis (!) will show that in a mill so worked, the whole net profit is derived *from the last hour*. I will suppose a manufacturer to invest £100,000:—£80,000 in his mill and machinery, and £20,000 in raw material and wages. The annual return of that mill, supposing the capital to be turned once a year, and gross profits to be 15 per cent., ought to be goods

238:1 „Unter dem gegenwärtigen Gesetz kann keine Fabrik, die Personen unter 18 Jahren beschäftigt, länger als 11 1/2 Stunden täglich arbeiten, d.h. 12 Stunden während der ersten 5 Tage und 9 Stunden am Sonnabend. Die folgende Analyse (!) zeigt nun, daß in einer solchen Fabrik der ganze Reingewinn von der letzten Stunde abgeleitet ist. Ein Fabrikant legt 100 000 Pfd.St. aus—80 000 Pfd.St. in Fabrikgebäude und Maschinen, 20 000 in Rohmaterial und Arbeitslohn. Der jährliche Umsatz der Fabrik, vorausgesetzt, das Kapital schlage jährlich einmal um und der Bruttoge-

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worth £15,000. . . Of this £115,000, each of the twenty-three half-hours of work produces 5–115ths or one twenty-third. Of these 23–23rds (constituting the whole £115,000), twenty, that is to say £100,000 out of the £115,000, simply replace the capital;—one twenty-third (or £5,000 out of the £115,000) makes up for the deterioration of the mill and machinery. The remaining 2–23rds, that is, the last two of the twenty-three half-hours of every day, produce the net profit of 10 per cent. If, therefore (prices remaining the same), the factory could be kept at work thirteen hours instead of eleven and a half, with an addition of about £2,600 to the circulating capital, the net profit would be more than doubled. On the other hand, if the hours of working were reduced by one hour per day (prices remaining the same), the *net* profit would be destroyed—if they were reduced by one hour and a half, even the *gross* profit would be destroyed.”³²

winn betrage 15%, muß sich auf Waren zum Wert von 115 000 Pfd.St. belaufen . . . Von diesen 115 000 Pfd.St. produziert jede der 23 halben Arbeitsstunden täglich 5/115 oder 1/23. von diesen 23/23, die das Ganze der 115 000 Pfd.St. bilden (constituting the whole 115 000 Pfd.St.), ersetzen 20/23, d.h. 100 000 von den 115 000, nur das Kapital; 1/23 oder 5000 Pfd. St. von den 15 000 Brutto-Gewinn (!) ersetzen die Abnutzung der Fabrik und Maschinerie. Die übrigbleibenden 2/23, d.h. die beiden letzten halben Stunden jedes Tages produzieren den Reingewinn von 10%. Wenn daher bei gleichbleibenden Preisen die Fabrik 13 Stunden statt 11 1/2 arbeiten dürfte, so würde, mit einer Zulage von ungefähr 2600 Pfd.St. zum zirkulierenden Kapital, der Reingewinn mehr als verdoppelt werden. Andererseits, wenn die Arbeitsstunden täglich um 1 Stunde reduziert würden, würde der Reingewinn verschwinden, wenn um 1 1/2 Stunden, auch der Bruttogewinn.“³²

³² Senior, l.c., pp. 12, 13. We let pass such extraordinary notions as are of no importance for our purpose; for instance, the assertion, that manufacturers reckon as part of their profit, gross or net, the amount required to make good wear and tear of machinery, or in other words, to replace a part of the capital. So, too, we pass over any question as to the accuracy of his figures. Leonard Horner has shown in “A Letter to Mr. Senior,” etc., London, 1837, that they are worth no more than so-called “Analysis.” Leonard Horner was one of the Factory Inquiry Commissioners in 1833, and Inspector, or rather Censor of Factories till 1859. He rendered undying service to the English working-class. He carried on a life-long contest, not only with the embittered manufacturers, but also with the Cabinet, to whom the number of votes given by the masters in the Lower House, was a matter of far greater importance than the number of hours worked by the “hands” in the mills.

³² Senior, l.c. p. 12, 13. Wir gehn auf die für unsren Zweck gleichgültigen Kuriosa nicht ein, z.B. die Behauptung, daß die Fabrikanten den Ersatz der verschliffnen Maschinerie usw., also eines Kapitalbestandteils, zum Gewinn, Brutto oder Netto, schmutzig oder rein, rechnen. Auch nicht auf die Richtigkeit oder Falschheit der Zahlenangaben. Daß sie nicht mehr wert sind als die sogenannte „Analyse“, bewies Leonard Horner in „A Letter to Mr. Senior etc“, London 1837. Leonard Horner, einer der Factory Inquiry Commissioners von 1833 und Fabrikinspektor, in der Tat Fabrikzensor, bis 1859, hat unsterbliche Verdienste um die englische Arbeiterklasse gewonnen. Außer mit den erbitterten Fabrikanten führte er einen lebenslangen Kampf mit den Ministern, für die es ungleich wichtiger war, die „Stimmen“ der Fabrikherrn im Unterhaus als die Arbeitsstunden der „Hände“ in der Fabrik zu zählen.

The remainder of the footnote gives a cleaner formulation of Senior’s mistaken calculation. Marx does not correct the conceptual mistakes, but he reformulates them to make them clearer, in order to better be able to refute them:

^{32 ctd} Senior’s representation is confused, apart from the wrongness of its content. What he really intended to say was this: The manufacturer employs the workman for 11 1/2 hours or for 23 half-hours daily. As the working-day, so, too,

^{32 ctd} Zusatz zur Note 32. Seniors Darstellung ist konfus, ganz abgesehen von der Falschheit ihres Inhalts. Was er eigentlich sagen wollte, war dies: Der Fabrikant beschäftigt die Arbeiter täglich 11 1/2 oder 23/2 Stunden. Wie der ein-

the working year, may be conceived to consist of 11 1/2 hours or 23 half-hours, but each multiplied by the number of working-days in the year. On this supposition, the 23 half-hours yield an annual product of £115,000; one half-hour yields $1/23 \times £115,000$; 20 half-hours yield $20/23 \times £115,000 = £100,000$, *i.e.*, they replace no more than the capital advanced. There remain 3 half-hours, which yield $3/23 \times £115,000 = £5,000$ or the gross profit. Of these 3 half-hours, one yields $1/23 \times £115,000 = £5,000$; *i.e.*, it makes up for the wear and tear of the machinery; the remaining 2 half-hours, *i.e.*, the last hour, yield $2/23 \times £115,000 = £10,000$ or the net profit. In the text Senior converts the last 2/23 of the product into portions of the working-day itself.

And the Professor calls this an "analysis!"

It is amazing how many errors this calculation contains. First Marx remarks that even if one adopts Senior's faulty framework one will not get to the same result as Senior:

If, giving credence to the out-cries of the manufacturers, he believed that the workmen spend the best part of the day in the production, *i.e.*, the reproduction or replacement of the value of the buildings, machinery, cotton, coal, etc., then his analysis was superfluous. His answer would simply have been:—Gentlemen! if you work your mills for 10 hours instead of 11 1/2, then, other things being equal, the daily consumption of cotton, machinery, etc., will decrease in proportion. You gain just as much as you lose. Your work-people will in future spend one hour and a half less time in reproducing or replacing the capital that has been advanced.

But if Senior wanted to apply economic principles that make sense, he would first of all have to introduce the distinction between constant and variable capital:

—If, on the other hand, he did not believe them without further inquiry, but, as being an expert in such matters, deemed an analysis necessary, then he ought, in a question that is concerned exclusively with the relations of net profit to the length of the working-day, before all things to have asked

zelne Arbeitstag, so besteht die Jahresarbeit aus 11 1/2 oder 23/2 Stunden (multipliziert mit der Anzahl der Arbeitstage während des Jahrs). Dies vorausgesetzt, produzieren die 23/2 Arbeitsstunden das Jahresprodukt von 115 000 Pfd.St.; 1/2 Arbeitsstunde produziert $1/23 \times 115\,000$ Pfd. St.; 20/2 Arbeitsstunden produzieren $20/23 \times 115\,000$ Pfd.St. = 100 000 Pfd.St., d.h. sie ersetzen nur das vorgeschobne Kapital. Bleiben 3/2 Arbeitsstunden, die $3/23 \times 115\,000$ Pfd.St. = 15 000 produzieren, d.h. den Bruttogewinn. Von diesen 3/2 Arbeitsstunden produziert 1/2 Arbeitsstunde $1/23 \times 115\,000$ Pfd.St. = 5000 Pfd. St., d.h. sie produziert nur den Ersatz für den Verschleiß der Fabrik und der Maschinerie. Die letzten zwei halben Arbeitsstunden, d.h. die letzte Arbeitsstunde, produziert $2/23 \times 115\,000$ Pfd. St. = 10 000 Pfd.St., d.h. den Nettoprofit. Im Text verwandelt Senior die letzten 2/23 des Produkts in Teile des Arbeitstags selbst.

239:1 Und das nennt der Herr Professor eine „Analyse“!

Glaubte er den Fabrikantenjammer, daß die Arbeiter die beste Zeit des Tags in der Produktion, daher der Reproduktion oder dem Ersatz des Werts von Baulichkeiten, Maschinen, Baumwolle, Kohle usw. vergeuden, so war jede Analyse überflüssig. Er hatte einfach zu antworten: Meine Herren! Wenn ihr 10 Stunden arbeiten laßt statt 11 1/2, wird, unter sonst gleichbleibenden Umständen, der tägliche Verzehr von Baumwolle, Maschinerie usw. um 1 1/2 Stunden abnehmen. Ihr gewinnt also grade so viel, als ihr verliert. Eure Arbeiter werden in Zukunft 1 1/2 Stunden weniger für Reproduktion oder Ersatz des vorgeschobnen Kapitalwerts vergeuden.

Glaubte er ihnen nicht aufs Wort, sondern hielt als Sachverständiger eine Analyse für nötig, so mußte er vor allem, in einer Frage, die sich ausschließlich um das Verhältnis des Reingewinns zur Größe des Arbeitstags dreht, die Herren Fabrikanten ersuchen, Maschinerie und Fabrikgebäude, Rohma-

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the manufacturers, to be careful not to lump together machinery, workshops, raw material, and labor, but to be good enough to place the constant capital, invested in buildings, machinery, raw material, etc., on one side of the account, and the capital advanced in wages on the other side.

The data furnished by the capitalists say that £ 100,000 were advanced as “capital,” i.e., labor and materials, corresponding to the product of 10 hours. Assuming that £ 10,000 of this were spent for labor and £ 90,000 for materials, this assumption would give a ratio of 1:1 between wages and surplus-value. Senior, talking as an economist, would be able to say that half of the day was spent to reproduce the wages, and the other half for profits:

If the Professor then found, that in accordance with the calculation of the manufacturers, the workman reproduced or replaced his wages in 2 half-hours, in that case, he should have continued his analysis thus:

According to your figures, the workman in the last hour but one produces his wages, and in the last hour your surplus-value or net profit. Now, since in equal periods he produces equal values, the produce of the last hour but one, must have the same value as that of the last hour. Further, it is only while he labors that he produces any value at all, and the amount of his labor is measured by his labor-time. This you say, amounts to 11 1/2 hours a day. He employs one portion of these 11 1/2 hours, in producing or replacing his wages, and the remaining portion in producing your net profit. Beyond this he does absolutely nothing. But since, on your assumption, his wages, and the surplus-value he yields, are of equal value, it is clear that he produces his wages in 5 3/4 hours, and your net profit in the other 5 3/4 hours. Again, since the value of the yarn produced in 2 hours, is equal to the sum of the values of his wages and of your net profit, the measure of the value of this yarn must be 11 1/2 working-hours, of which 5 3/4 hours measure the value of the yarn produced in the last hour but one, and 5 3/4, the value of the yarn produced in the last hour.

So far Marx has not yet addressed the error committed by the capitalists of ignoring the value transferred from the raw materials but pretending that the labor has to reproduce this value. This error manifests itself now as a contradiction.

terial und Arbeit nicht kunterbunt durcheinanderzuwirren, sondern gefälligst das in Fabrikgebäude, Maschinerie, Rohmaterial usw. enthaltne konstante Kapital auf die eine, das in Arbeitslohn vorgeschobne Kapital auf die andre Seite zu stellen.

Ergab sich dann etwa, daß nach der Fabrikantenrechnung der Arbeiter in 2/2 Arbeitsstunden, oder in einer Stunde, den Arbeitslohn reproduziert oder ersetzt, so hatte der Analytiker fortzufahren:

239:2/oo Nach eurer Angabe produziert der Arbeiter in der vorletzten Stunde seinen Arbeitslohn und in der letzten euren Mehrwert oder den Reingewinn. Da er in gleichen Zeiträumen gleiche Werte produziert, hat das Produkt der vorletzten Stunde denselben Wert wie das der letzten. Er produziert ferner nur Wert, soweit er Arbeit verausgabt, und das Quantum seiner Arbeit ist gemessen durch seine Arbeitszeit. Diese beträgt nach eurer Angabe 11 1/2 Stunden per Tag. Einen Teil dieser 11 1/2 Stunden verbraucht er zur Produktion oder zum Ersatz seines Arbeitslohns, den andren zur Produktion eures Reingewinns. Weiter tut er nichts während des Arbeitstags. Da aber, nach Angabe, sein Lohn und der von ihm gelieferte Mehrwert gleich große Werte sind, produziert er offenbar seinen Arbeitslohn in 5 3/4 Stunden und euren Reingewinn in andren 5 3/4 Stunden. Da ferner der Wert des zweistündigen Garnprodukts gleich der Wertsumme seines Arbeitslohns plus eures Reingewinns ist, muß dieser Garnwert durch 11 1/2 Arbeitsstunden gemessen sein, das Produkt der vorletzten Stunde durch 5 3/4 Arbeitsstunden, das der letzten ditto.

We now come to a ticklish point; therefore, attention! The last working-hour but one is, like the first, an ordinary working-hour, neither more nor less. How then can the spinner produce in one hour, in the shape of yarn, a value that embodies $5\frac{3}{4}$ hours' labor? The truth is that he performs no such miracle. The use-value produced by him in one hour, is a definite quantity of yarn. The value of this yarn is measured by $5\frac{3}{4}$ working-hours, of which $4\frac{3}{4}$ were, without any assistance from him, previously embodied in the means of production, in the cotton, the machinery, and so on; the remaining one hour alone is added by him. Therefore since his wages are produced in $5\frac{3}{4}$ hours, and the yarn produced in one hour also contains $5\frac{3}{4}$ hours' work, there is no witchcraft in the result, that the value created by his $5\frac{3}{4}$ hours' spinning, is equal to the value of the product spun in one hour. You are altogether on the wrong track, if you think that he loses a single moment of his working-day, in reproducing or replacing the values of the cotton, the machinery, and so on. On the contrary, it is because his labor converts the cotton and spindles into yarn, because he spins, that the values of the cotton and spindles go over to the yarn of their own accord. This result is owing to the quality of his labor, not to its quantity. It is true, he will in one hour transfer to the yarn more value, in the shape of cotton, than he will in half an hour; but that is only because in one hour he spins up more cotton than in half an hour.

Here is the resolution of this contradiction:

You see then, your assertion, that the workman produces, in the last hour but one, the value of his wages, and in the last hour your net profit, amounts to no more than this, that in the yarn produced by him in 2 working-hours, whether they are the 2 first or the 2 last hours of the working-day, in that yarn, there are incorporated $11\frac{1}{2}$ working-hours, or just a whole day's work, *i.e.*, two hours of his own work and $9\frac{1}{2}$ hours of other people's. And my assertion that, in

Wir kommen jetzt zu einem häklichen Punkt. Also aufgepaßt! Die vorletzte Arbeitsstunde ist eine gewöhnliche Arbeitsstunde wie die erste. Ni plus, ni moins. Wie kann der Spinner daher in einer Arbeitsstunde einen Garnwert produzieren, der $5\frac{3}{4}$ Arbeitsstunden darstellt? Er verrichtet in der Tat kein solches Wunder. Was er in einer Arbeitsstunde an Gebrauchswert produziert, ist ein bestimmtes Quantum Garn. Der Wert dieses Garns ist gemessen durch $5\frac{3}{4}$ Arbeitsstunden, wovon $4\frac{3}{4}$ ohne sein Zutun in den stündlich verzehrten Produktionsmitteln stecken, in Baumwolle, Maschinerie usw., $\frac{4}{4}$ oder eine Stunde von ihm selbst zugesetzt ist. Da also sein Arbeitslohn in $5\frac{3}{4}$ Stunden produziert wird und das Garnprodukt einer Spinnstunde ebenfalls $5\frac{3}{4}$ Arbeitsstunden enthält, ist es durchaus keine Hexerei, daß das Wertprodukt seiner $5\frac{3}{4}$ Spinnstunden gleich dem Produktenwert einer Spinnstunde. Ihr seid aber durchaus auf dem Holzweg, wenn ihr meint, er verliere ein einziges Zeitatom seines Arbeitstags mit der Reproduktion oder dem „Ersatz“ der Werte von Baumwolle, Maschinerie usw. Dadurch, daß seine Arbeit aus Baumwolle und Spindel Garn macht, dadurch, daß er spinnt, geht der Wert von Baumwolle und Spindel von selbst auf das Garn über. Es ist dies der Qualität seiner Arbeit geschuldet, nicht ihrer Quantität. Allerdings wird er in einer Stunden mehr Baumwollwert usw. auf Garn übertragen als in $\frac{1}{2}$ Stunde, aber nur weil er in 1 Stunde mehr Baumwolle verspinnt als in $\frac{1}{2}$.

Ihr begreift also: Euer Ausdruck, der Arbeiter produziert in der vorletzten Stunde den Wert seines Arbeitslohns und in der letzten den Reingewinn, heißt weiter nichts, als daß in dem Garnprodukt von zwei Stunden seines Arbeitstags, ob sie vorn oder hinten stehen, $11\frac{1}{2}$ Arbeitsstunden verkörpert sind, grade so viel Stunden, als sein ganzer Arbeitstag zählt. Und der Ausdruck, daß er in den ersten $5\frac{3}{4}$ Stunden seinen Arbeitslohn und in den letzten $5\frac{3}{4}$ Stunden euren Rein-

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the first $5\frac{3}{4}$ hours, he produces his wages, and in the last $5\frac{3}{4}$ hours your net profit, amounts only to this, that you pay him for the former, but not for the latter. In speaking of payment of labor, instead of payment of labor-power, I only talk your own slang.

↓ Now the results of this calculation: the rate of surplus-value of 100% is nothing to complain about. But the expectation that an extension of the labor day by 90 minutes will double profits is too optimistic, just as the expectation that a shortening by 90 minutes will wipe out profits is too pessimistic.

Now, gentlemen, if you compare the working-time you pay for, with that which you do not pay for, you will find that they are to one another, as half a day is to half a day; this gives a rate of 100%, and a very pretty percentage it is. Further, there is not the least doubt, that if you make you “hands” toil for 13 hours, instead of $11\frac{1}{2}$, and, as may be expected from you, treat the work done in that extra one hour and a half, as pure surplus-labor, then the latter will be increased from $5\frac{3}{4}$ hours’ labor to $7\frac{1}{4}$ hours’ labor, and the rate of surplus-value from 100% to $126\frac{2}{23}\%$. So that you are altogether too sanguine, in expecting that by such an addition of $1\frac{1}{2}$ hours to the working-day, the rate will rise from 100% to 200% and more, in other words that it will be “more than doubled.” On the other hand—man’s heart is a wonderful thing, especially when carried in the purse—you take too pessimist a view, when you fear, that with a reduction of the hours of labor from $11\frac{1}{2}$ to 10, the whole of your net profit will go to the dogs. Not at all. All other conditions remaining the same, the surplus-labor will fall from $5\frac{3}{4}$ hours to $4\frac{3}{4}$ hours, a period that still gives a very profitable rate of surplus-value, namely $82\frac{14}{23}\%$. But this dreadful “last hour,” about which you have invented more stories than have the millenarians about the day of judgment, is “all bosh.” If it goes, it will cost neither you, your net profit, nor the boys and girls whom you employ, their “purity of mind.”^{32a}

^{32a} If, on the one hand, Senior proved that the

gewinn produziert, heißt wieder nichts, als daß ihr die ersten $5\frac{3}{4}$ Stunden zahlt und die letzten $5\frac{3}{4}$ Stunden nicht zahlt. Ich spreche von Zahlung der Arbeit, statt der Arbeitskraft, um euren slang zu reden.

Vergleicht ihr Herren nun das Verhältnis der Arbeitszeit, die ihr zahlt, zur Arbeitszeit, die ihr nicht zahlt, so werdet ihr finden, daß es halber Tag zu halbem Tag ist, also 100%, was allerdings ein artiger Prozentsatz. Es unterliegt auch nicht dem geringsten Zweifel, daß, wenn ihr eure „Hände“ statt $11\frac{1}{2}$ Stunden 13 abschant und, was euch so ähnlich sieht wie ein Ei dem anderen, die überschüssigen $1\frac{1}{2}$ Stunden zur bloßen Mehrarbeit schlägt, letztere von $5\frac{3}{4}$ Stunden auf $7\frac{1}{4}$ Stunden wachsen wird, die Rate des Mehrwerts daher von 100% auf $126\frac{2}{23}\%$. Dagegen seid ihr gar zu tolle Sanguiniker, wenn ihr hofft, sie werde durch den Zusatz von $1\frac{1}{2}$ Stunden von 100 auf 200% und gar mehr als 200% steigen, d.h. sich „mehr als verdoppeln“. Andererseits—des Menschen Herz ist ein wunderlich Ding, namentlich wenn der Mensch sein Herz im Beutel trägt—seid ihr gar zu verrückte Pessimisten, wenn ihr fürchtet, mit der Reduktion des Arbeitstags von $11\frac{1}{2}$ auf $10\frac{1}{2}$ Stunden werde euer ganzer Reingewinn in die Brüche gehn. Beileibe nicht. Alle anderen Umstände als gleichbleibend vorausgesetzt, wird die Mehrarbeit von $5\frac{3}{4}$ auf $4\frac{3}{4}$ Stunden fallen, was immer noch eine ganz erkleckliche Rate des Mehrwerts gibt, nämlich $82\frac{14}{23}\%$. Die verhängnisvolle „letzte Stunde“ aber, von der ihr mehr gefabelt habt als die Chiliasten vom Weltuntergang, ist „all bosh“. Ihr Verlust wird weder euch den „Reingewinn“ noch den von euch verarbeiteten Kindern beiderlei Geschlechts die „Seelenreinheit“ kosten.^{32a}

^{32a} Wenn Senior bewies, daß an „der letzten

net profit of the manufacturer, the existence of the English cotton industry, and England's command of the markets of the world, depend on "the last working-hour," on the other hand, Dr. Andrew Ure showed, that if children and young persons under 18 years of age, instead of being kept the full 12 hours in the warm and pure moral atmosphere of the factory, are turned out an hour sooner into the heartless and frivolous outer world, they will be deprived, by idleness and vice, of all hope of salvation for their souls. Since 1848, the factory inspectors have never tired of twitting the masters with this "last," this "fatal hour." Thus Mr. Hovell in his report of the 21st May, 1855: "Had the following ingenious calculation (he quotes Senior) been correct, every cotton factory in the United Kingdom would have been working at a loss since the year 1850." (Reports of the Insp. of Fact., for the half-year, ending 30th April, 1855, pp. 19, 20.) In the year 1848, after the passing of the 10 hours' bill, the masters of some flax spinning mills, scattered, few and far between, over the country on the borders of Dorset and Somerset, foisted a petition against the bill on to the shoulders of a few of their work-people. One of the clauses of this petition is as follows: "Your petitioners, as parents, conceive that an additional hour of leisure will tend more to demoralise the children than otherwise, believing that idleness is the parent of vice." On this the factory report of 31st Oct., 1848, says: The atmosphere of the flax mills, in which the children of these virtuous and tender parents work, is so loaded with dust and fibre from the raw material, that it is exceptionally unpleasant to stand even 10 minutes in the spinning rooms: for you are unable to do so without the most painful sensation, owing to the eyes, the ears, the nostrils, and mouth, being immediately filled by the clouds of flax dust from which there is no escape. The labor itself, owing to the feverish haste of the machinery, demands unceasing application of skill and movement, under the control of a watchfulness that never tires, and it seems somewhat hard, to let parents apply the term "idling" to their own children, who, after allowing for meal-times, are fettered for 10 whole hours to such an occupation, in such an atmosphere... These children work longer than the laborers in the neighbouring villages... Such cruel talk about "idleness and vice" ought to be branded as the purest cant, and the most shame-

Arbeitsstunde" der Reingewinn der Fabrikanten, die Existenz der englischen Baumwollindustrie, Englands Weltmarktgröße hängen, bewies dahin wiederum Dr. Andrew Ure in den Kauf, daß Fabrikinder und junge Personen unter 18 Jahren, welche man nicht volle 12 Stunden in die warme und reine Moralluft der Fabrikstube bannt, sondern „eine Stunde“ früher in die gemütskalte und frivole Außenwelt verstößt, von Müßiggang und Laster um ihr Seelenheil geprellt werden. Seit 1848 werden die Fabrikinspektoren nicht müde, in ihren halbjährlichen „Reports“ die Fabrikanten mit „der letzten“, der „verhängnisvollen Stunde“ zu necken. So sagt Herr Howell in seinem Fabrikbericht vom 31. Mai 1855: „Wäre die folgende scharfsinnige Berechnung“ (er zitiert Senior) „richtig, so hätte jede Baumwollfabrik im Ver. Königreich seit 1850 mit Verlust gearbeitet.“ „Reports of the Insp. of Fact. for the half year ending 30th April 1855“, p. 19, 20.) Als im Jahr 1848 die Zehnstundenbill durchs Parlament ging, oktroyierten die Fabrikanten einigen Normalarbeitern in den ländlichen, zwischen den Grafschaften Dorset und Somerset zerstreut liegenden Flachsspinnereien eine Gegenpetition, worin es u.a. heißt: „Eure Bittsteller, Eltern, glauben, daß eine zusätzliche Mußestunde weiter keinen Erfolg haben kann als die Demoralisation ihrer Kinder, denn Müßiggang ist alles Lasters Anfang.“ Hierzu bemerkt der Fabrikbericht vom 31. Oktober 1848: „Die Atmosphäre der Flachsspinnereien, worin die Kinder dieser tugendhaft-zärtlichen Eltern arbeiten, ist geschwängert mit so unzähligen Staub- und Faserpartikelchen des Rohmaterials, daß es außerordentlich unangenehm ist, auch nur 10 Minuten in den Spinnstuben zuzubringen, denn ihr könnt das nicht ohne die peinlichste Empfindung, indem Auge, Ohr, Nasenlöcher und Mund sich sofort füllen mit Flachsstaubwolken, vor denen kein Entrinnen ist. Die Arbeit selbst erheischt, wegen der Fieberhast der Maschinerie, rastlosen Aufwand von Geschick und Bewegung, unter der Kontrolle nie ermüdender Aufmerksamkeit, und es scheint etwas hart, Eltern den Ausdruck 'Faulenzerei' auf die eignen Kinder anwenden zu lassen, die, nach Abzug der Essenszeit, 10 volle Stunden an solche Beschäftigung, in einer solchen Atmosphäre, geschmiedet sind ... Diese Kinder arbeiten länger als die Ackerknechte in den Nachbardörfern ... Solch liebloses Gekohl über „Müßiggang und Laster“ muß als der reinste Cant und die schamloseste Heu-

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less hypocrisy... That portion of the public, who, about 12 years ago, were struck by the assurance with which, under the sanction of high authority, it was publicly and most earnestly proclaimed, that the whole net profit of the manufacturer flows from the labor of the last hour, and that, therefore, the reduction of the working-day by one hour, would destroy his net profit, that portion of the public, we say, will hardly believe its own eyes, when it now finds, that the original discovery of the virtues of "the last hour" has since been so far improved, as to include morals as well as profit; so that, if the duration of the labor of children, is reduced to a full 10 hours, their morals, together with the net profits of their employers, will vanish, both being dependent on this last, this fatal hour. (See Repts., Insp. of Fact., for 31st Oct., 1848, p. 101.) The same report then gives some examples of the morality and virtue of these same pure-minded manufacturers, of the tricks, the artifices, the cajoling, the threats, and the falsifications, they made use of, in order, first, to compel a few defenceless workmen to sign petitions of such a kind, and then to impose them upon Parliament as the petitions of a whole branch of industry, or a whole country. It is highly characteristic of the present status of so-called economic science, that neither Senior himself, who, at a later period, to his honour be it said, energetically supported the factory legislation, nor his opponents, from first to last, have ever been able to explain the false conclusions of the "original discovery." They appeal to actual experience, but the why and wherefore remains a mystery.

Whenever your "last hour" strikes in earnest, think of the Oxford Professor. And now, gentlemen, "farewell, and may we meet again in yonder better world, but not before."

Unfortunately, Senior's argument did not go away. It was warmed over, 12 years later, by Wilson:

Senior invented the battle cry of the "last hour" in 1836.³³ In the *London Economist* of the 15th April, 1848, the same cry was again raised by James Wilson, an economic mandarin of high standing: this time in opposition to the 10 hours' bill.

³³ Nevertheless, the learned professor was not

chelei gebrandmarkt werden... Der Teil des Publikums, der vor ungefähr zwölf Jahren auffuhr über die Zuversicht, womit man öffentlich und ganz ernsthaft proklamierte, unter der Sanktion hoher Autorität, daß der ganze „Reingewinn“ des Fabrikanten aus „der letzten Stunde“ Arbeit fließt und daher die Reduktion des Arbeitstags um eine Stunde den Reingewinn vernichtet; dieser Teil des Publikums, sagen wir, wird kaum seinen Augen trauen, wenn er nun findet, daß die Original-Entdeckung über die Tugenden der „letzten Stunde“ seitdem so weit verbessert worden ist, „Moral“ und „Profit“ gleichmäßig einzuschließen; so daß, wenn die Dauer der Kinderarbeit auf volle 10 Stunden reduziert wird, die Moral der Kinder zugleich mit dem Nettogewinn ihrer Anwen-der flöten geht, beide abhängig von dieser letzten, dieser fatalen Stunde.“ „Repts. of Insp. of Fact. for 31st Oct. 1848“, p. 101.) Derselbe Fabrikbericht gibt dann Proben von der „Moral“ und „Tugend“ dieser Herrn Fabrikanten, von den Schlichen, Piffen, Lockungen, Drohmitteln, Fälschungen usw., die sie anwandten, um von wenigen ganz verwahrlosten Arbeitern dergleichen Petitionen unterzeichnen zu machen, um sie dann als Petitionen eines ganzen Industriezweigs, ganzer Grafschaften dem Parlament aufzubinden.—Höchst charakteristisch bleibt es für den heutigen Stand der sogenannten ökonomischen „Wissenschaft“, daß weder Senior selbst, der später zu seiner Ehre energisch für die Fabrikgesetzgebung auftrat, noch seine ursprünglichen und spätern Widersacher, die Trugschlüsse der „Originalentdeckung“ aufzulösen wußten. Sie appellierten an die tatsächliche Erfahrung. Das why und wherefore blieb Mysterium.

242:1/o Wenn einmal euer „letztes Stündlein“ wirklich schlägt, denkt an den Professor von Oxford. Und nun: In einer beßren Welt wünsch' ich mir mehr von eurem wer-ten Umgang. Addio!³³ ...

Das Signal der von Senior 1836 entdeckten „letzten Stunde“ ward am 15. April 1848, polemisch gegen das Zehnstundengesetz, von James Wilson, einem der ökonomischen Hauptmandarine, im „London Economist“ von neuem geblasen.

³³ Indes hatte der Herr Professor doch etwas

without some benefit from his journey to Manchester. In the "Letters on the Factory Act," he makes the whole net gains including "profit" and "interests" and even "something more," depend upon a single unpaid hour's work of the laborer. One year previously, in his "Outlines of Political Economy," written for the instruction of Oxford students and cultivated Philistines, he had also "discovered, in opposition to Ricardo's determination of value by labor, that profit is derived from the labor of the capitalist, and interest from his asceticism, in other words, from his abstinence." The dodge was an old one, but the word "abstinence" was new. Herr Roscher translates it rightly by "Enthaltung." Some of his countrymen, the Browns, Jones, and Robinsons, of Germany, not so well versed in Latin as he, have, monk-like, rendered it by "Entsagung" (renunciation).

bei seinem Manchester Ausflug profitiert! In den „Letters on the Factory Act“ hängt der ganze Reingewinn, „Profit“ und „Zins“ und sogar „something more“ an einer unbezahlten Arbeitsstunde des Arbeiters! Ein Jahr zuvor, in seinen zum Gemeinbesten Oxforder Studenten und gebildeter Philister verfaßten „Outlines of Political Economy“ hatte er noch gegenüber Ricardos Wertbestimmung durch die Arbeitszeit „entdeckt“, daß der Profit aus der Arbeit des Kapitalisten und der Zins aus seiner Asketik, seiner „Abstinenz“ herstammte. Die Flause selbst war alt, aber das Wort „Abstinenz“ neu. Herr Roscher verdeutscht es richtig durch „Enthaltung“. Seine minder mit Latein beschlagenen Kompatrioten, Wirte, Schulzen und andre Michels, haben es in „Entsagung“ vermöncht.

9.4. The Surplus Product

Without much comment, Marx argues here that the principle which causes us to set $c = 0$ in the computation of the rate of surplus-value of a firm, is also valid for national income accounting. The concept of net product only counts profit, even the wage incomes are not counted. Marx argues that this net product should be seen in relation to the wage incomes.

The portion of the product that represents the surplus-value, (one tenth of the 20 lbs., or 2 lbs. of yarn, in the example given in Sec. 2,) we call "surplus-produce." Just as the rate of surplus-value is determined by its relation, not to the sum total of the capital, but to its variable part; in like manner, the relative quantity of surplus-produce is determined by the ratio that this produce bears, not to the remaining part of the total product, but to that part of it in which is incorporated the necessary labor. Since the production of surplus-value is the chief end and aim of capitalist production, it is clear, that the extent of a man's or a nation's wealth should be measured, not by the absolute quantity produced, but by the relative magnitude of the surplus-produce.³⁴

³⁴ "To an individual with a capital of £20,000, whose profits were £2,000 per annum, it would be a matter quite indifferent whether his capital would employ a 100 or 1,000 men, whether the commodity produced sold for £10,000 or

243:1 Den Teil des Produkts (1/10 von 20 Pfd. Garn oder 2 Pfd. Garn in dem Beispiel sub 2), worin sich der Mehrwert darstellt, nennen wir Mehrprodukt (surplus produce, produit net). Wie die Rate des Mehrwerts durch sein Verhältnis nicht zur Gesamtsumme, sondern zum variablen Bestandteil des Kapitals bestimmt wird, so die Höhe des Mehrprodukts durch sein Verhältnis nicht zum Rest des Gesamtprodukts, sondern zum Produktteil, worin sich die notwendige Arbeit darstellt. Wie die Produktion von Mehrwert der bestimmende Zweck der kapitalistischen Produktion, so mißt nicht die absolute Größe des Produkts, sondern die relative Größe des Mehrprodukts den Höhegrad des Reichtums.³⁴

³⁴ „Für ein Individuum mit einem Kapital von 20 000 Pfd.St., dessen Profite 2000 Pfd.St. jährlich betragen, wäre es ein durchaus gleichgültig Ding, ob sein Kapital 100 oder 1000 Arbeiter beschäftigt, ob die produzierten Waren sich zu

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£20,000, provided, in all cases, his profit were not diminished below £2,000. Is not the real interest of the nation similar? Provided its net real income, its rent and profits, be the same, it is of no importance whether the nation consists of 10 or of 12 millions of inhabitants.” (Ric. l.c., p. 416.) Long before Ricardo, Arthur Young, a fanatical upholder of surplus-produce, for the rest, a rambling, uncritical writer, whose reputation is in the inverse ratio of his merit, says, “Of what use, in a modern kingdom, would be a whole province thus divided [in the old Roman manner, by small independent peasants], however well cultivated, except for the mere purpose of breeding men, which taken singly is a most useless purpose?” (Arthur Young: “Political Arithmetic, etc.” London, 1774, p. 47.)

^{34 ctd} Very curious is “the strong inclination... to represent net wealth as beneficial to the laboring class... though it is evidently not on account of being net.” (Th. Hopkins, “On Rent of Land, etc.” London, 1828, p. 126.)

↓ Now transition to chapter 10:

The sum of the necessary labor and the surplus-labor, i.e., of the periods of time during which the workman replaces the value of his labor-power, and produces the surplus-value, this sum constitutes the actual time during which he works, i.e., the working-day.

10 000 oder 20 000 Pfd.St. verkaufen, immer vorausgesetzt, daß seine Profite in allen Fällen nicht unter 2000 Pfd.St. fallen. Ist das reale Interesse einer Nation nicht dasselbe? Vorausgesetzt, ihr reales Nettoeinkommen, ihre Renten und Profite bleiben dieselben, so ist es nicht von der geringsten Wichtigkeit, ob die Nation aus 10 oder 12 Millionen Einwohnern besteht.“ (Ricardo, l.c. p. 416.) Lange vor Ricardo sagte der Fanatiker des Mehrprodukts, Arthur Young, ein übrigens schwatzschweifiger, kritikloser Schriftsteller, dessen Ruf in umgekehrtem Verhältnis zu seinem Verdienst steht, u.a.: „von welchem Nutzen würde in einem modernen Königreich eine ganze Provinz sein, deren Boden in altrömischer Manier, von kleinen, unabhängigen Bauern, meinetwegen noch so gut bebaut würde? Von welchem Zwecke, außer dem einzigen, Menschen zu erzeugen (the mere purpose of breeding men), was an und für sich gar keinen Zweck hat (is a most useless purpose)“? (Arthur Young, „Political Arithmetic etc.“, London 1774, p. 47.)

^{34 ctd} Zusatz zu Note 34. Sonderbar ist „die starke Neigung, das Reineinkommen als vorteilhaft für die arbeitende Klasse hinzustellen, ... dabei ist aber offensichtlich, daß dieses nicht deshalb vorteilhaft ist, weil es rein ist“. (Th. Hopkins, „On Rent of Land etc.“, London 1828, p. 126.)

244:1 Die Summe der notwendigen Arbeit und der Mehrarbeit, der Zeitabschnitte, worin der Arbeiter den Ersatzwert seiner Arbeitskraft und den Mehrwert produziert, bildet die absolute Größe seiner Arbeitszeit—den Arbeitstag (working day).

10. The Working-Day

“The working-day is . . . determinable, but in and for itself indeterminate.” This last sentence of 240:1 can be considered a summary of Marx’s argument in chapter Ten.

- “The length of the working-day is in and for itself indeterminate” means that there are no economic laws prescribing how long the working-day must be. Within certain limits, the capitalist economy functions equally well with a longer or shorter working-day. If one tries to derive the length of the working-day from the laws of commodity exchange, someone looking at it from the point of view of the worker gets different results than someone looking at it from the point of view of the capitalist. This is discussed in section 10.1.
- But the length of the working-day is “determinable,” i.e., this length can be, and even must be, fixed by extra-economic forces. Since the length of the working-day is not determined by the market, the working-class is forced to take up political struggles as described in this chapter. The sections after section 10.1 give a “historical sketch” (sic in 302:1) of the struggles between capitalist class and working class in England, which led to a *legal* fixation of the working-day.

10.1. The Limits of the Working-Day

Marx’s starting point is the division of the working-day into two parts, necessary labor and surplus labor. “Necessary labor” is the length of time needed by the worker every day to produce an equivalent of his or her daily wage. “Surplus-labor” is the additional time during which the worker produces value appropriated without equivalent by the capitalist. This division of the working-day was already introduced in chapter Seven in a rather dramatic and entertaining fashion, see 201:2. The terminology “necessary labor-time” for that part of the working-day in which the worker produces an equivalent of his wages was formally defined in chapter Nine, . This concept should not be confused with that of “socially necessary labor-time” defined in chapter One, 49:1.

Question 815 *Why is the day taken as unit of labor-power, instead of hour or week?*
Answer, 2012fa, 2011fa, 2010fa, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa.

10.1.a. [Indeterminacy of the Working-Day]

239:2 We started with the assumption that labor-power is bought and sold at its value. The value of labor-power, like that of any other commodity, is determined by the labor-time necessary for its production. If the production of the average daily con-

245:1 Wir gingen von der Voraussetzung aus, daß die Arbeitskraft zu ihrem Werte gekauft und verkauft wird. Ihr Wert, wie der jeder andren Ware, wird bestimmt durch die zu ihrer Produktion nötige Arbeitszeit. Erheischt also die Produktion der durch-

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sumption of the laborer takes up 6 hours, he must work, on the average, 6 hours every day to produce his daily labor-power, or to reproduce the value he received when he sold it. The necessary part of his working-day amounts to 6 hours, and is, therefore, *caeteris paribus*, a given quantity. But with this, the length of the working-day itself is not yet given.

schnittlichen täglichen Lebensmittel des Arbeiters 6 Stunden, so muß er im Durchschnitt 6 Stunden per Tag arbeiten, um seine Arbeitskraft täglich zu produzieren oder den in ihrem Verkauf erhaltenen Wert zu reproduzieren. Der notwendige Teil seines Arbeitstags beträgt dann 6 Stunden und ist daher, unter sonst gleichbleibenden Umständen, eine gegebene Größe. Aber damit ist die Größe des Arbeitstags selbst noch nicht gegeben.

↑ Usually one thinks of the daily or weekly wage as a derived quantity: it is hourly wage times number of hours worked. The hourly wage is determined by economic laws, namely, the productivity of the labor performed. The number of hours worked depends on the agreement between worker and employer. In the background of this is the notion that the worker is selling his or her labor, therefore wages depend on the labor performed. In chapter Nineteen, Marx will discuss in detail the surface appearances giving rise to this illusory notion. The present chapter Ten ignores these surface appearances and uses the simple framework of chapter Six, according to which the worker is not selling labor but labor-power, with the wage being the reimbursement for the costs of reproducing the labor-power. For labor-power, the smallest unit of measurement is the day. The reproduction costs of labor-power can be computed as the daily costs for food, rent, clothing, utilities, transportation, etc. Therefore for Marx the daily wage is a basic quantity, and the hourly wage the derived quantity.

With the daily wage fixed by the laws of chapter Six, the next important question is: “how long is the working-day?” Marx asks this question explicitly in 241:1–4, but this is the main question discussed throughout chapter Ten.

Question 822 *According to Marx, the daily wage is determined by the value of the “average daily consumption of the worker.” How is then the biweekly salary of a salaried employee determined, and how is the hourly wage of a hourly worker determined?* 2013fa, 2011fa, 2008fa, 2007SP, 2004fa, 2003fa.

It is commonly thought that the length of the working-day is fixed by economic necessity. If the workers were to go home before the usual 8, 10, 12, 14 hours per day, then, it is believed, the economy would break down or the capitalists would have to close the factories. One can presently witness this kind of propaganda in the struggles for a shorter work week in Europe. Even the workers themselves cannot believe that it is economically possible that they work fewer hours each week and still get the same weekly wage. Mainstream economics perpetuates this myth: usually the length of the working-day is treated as a fixed magnitude. To add insult to injury, this length is said to be the result of free choice: you are stuck with such long hours because all other workers want it this way.

Marx, by contrast, says: the labor day consists of two parts, the necessary part and the surplus part. Only the necessary part is fixed by economic laws; the surplus part is “variable,” up for grabs so to say. Marx is using here the day as unit of measurement of labor-power, not the hour. The daily wage is determined by the value of the “average daily means of subsistence” of the laborer. If the work day is 8 hours long, then perhaps only 3 hours are needed to reproduce this daily wage. These 3 hours are given by economic necessity:

the working-day cannot be shorter than 3 hours. But the second part, consisting here of 5 hours, is variable. This part might be shorter or longer, according to the balance of forces between workers and capitalists. The factors determining this variable part are discussed in the remainder of section 10.1.

10.1.b. [The Inherent Limits of Surplus Labor]

239:2/o Let us assume that the line A—B represents the length of the necessary working time, say 6 hours. If the labor be prolonged 1, 3, or 6 hours beyond A—B, we have 3 different lines

working-day I A—B—C,
working-day II A—B—C,
working-day III A—B—C,

representing 3 different working-days of 7, 9, and 12 hours. The extension B—C of the line A—B represents the length of the surplus-labor. As the working-day is A—B + B—C or A—C, it varies with the variable quantity B—C.

This is a very simple relationship, and it might seem pedantic to go through it in such detail. However Marx's emphasis is justifiable because this simple relationship is *not* part of the common consciousness! The limits of necessary labor are not visible to the surface agents. No bell rings in the factories at 11 am to indicate that now the (unpaid) surplus labor begins. Also the fact that wages are paid per hour, not per day, is confusing here. The length of the necessary labor is part of the hidden social relations of production which chain us all together through invisible chains. Although it is not readily apparent in the surface interactions, it is real and its quantity is well-defined; Marx says in the next sentence that it is "given":

Since A—B is given, the ratio of B—C to A—B can always be calculated. In working-day I, it is 1/6, in working-day II, 3/6, in working-day III 6/6 of A—B.

The ratio $\frac{\text{surplus working time}}{\text{necessary working time}}$ is sometimes called the "rate of exploitation." This invisible rate of exploitation determines the rate of surplus-value, which is visible. Compare chapter Nine, 217:2/o.

Since further the ratio $\frac{\text{surplus working time}}{\text{necessary working time}}$ determines the rate of the surplus-value, the latter is given by the ratio of B—C to A—B. It amounts in the 3 different working-days respectively to 16 2/3, 50, and 100 per cent.

↓ This representation of the underlying relations of production on the surface however has holes: certain aspects of these relations are not visible.

On the other hand, the rate of surplus-value alone would not give us the extent of the working-day. If this rate, e.g., were

245:2/o Nehmen wir an, die Linie a—b stelle die Dauer oder Länge der notwendigen Arbeitszeit vor, sage 6 Stunden. Je nachdem die Arbeit über ab um 1, 3 oder 6 Stunden usw. verlängert wird, erhalten wir die 3 verschiedenen Linien:

Arbeitstag I a—b—c,
Arbeitstag II a—b—c,
Arbeitstag III a—b—c,

die drei verschiedene Arbeitstage von 7, 9 und 12 Stunden vorstellen. Die Verlängerungslinie bc stellt die Länge der Mehrarbeit vor. Da der Arbeitstag = ab + bc oder ac ist, variiert er mit der variablen Größe bc.

Da ab gegeben ist, kann das Verhältnis von bc zu ab stets gemessen werden. Es beträgt in Arbeitstag I 1/6, in Arbeitstag II 3/6 und im Arbeitstag III 6/6 von ab.

Da ferner die Proportion $\frac{\text{Mehrarbeitszeit}}{\text{notwendige Arbeitszeit}}$ die Rate des Mehrwerts bestimmt, ist letztere gegeben durch jenes Verhältnis. Sie beträgt in den drei verschiedenen Arbeitstagen respektive 16 2/3, 50 und 100%.

Umgekehrt würde die Rate des Mehrwerts allein uns nicht die Größe des Arbeitstags geben. Wäre sie z.B. gleich 100%, so könn-

10. The Working-Day

100 per cent, the working-day might be of 8, 10, 12, or more hours. It would indicate that the two constituent parts of the working-day, necessary-labor and surplus-labor-time, were equal in extent, but not how long each of these two constituent parts was.

Marx assumes that competition between workers and capitalists tends to equalize the rate of exploitation. ↑ In this light, the above simple observation shows that an equal rate of exploitation can accommodate different lengths of the working-day.

240:1 The working-day is thus not a constant, but a variable quantity.

↑ By “variable” Marx means that there is no economic law which would force the total working-day to be a certain length. The basic structure of capitalism does not make this length a function of productivity or such; rather, it is “up for grabs.”

Although one of its parts is determined by the working time required for the reproduction of the labor-power of the laborer himself, its total length varies with the duration of the surplus-labor. The working-day is, therefore, determinable, but in and for itself indeterminate.³⁵

³⁵ “A day’s labour is vague, it may be long or short.” (“An Essay on Trade and Commerce, Containing Observations on Taxes, etc.” London 1770, p. 73.)

↑ After all this emphasis that the working-day is *indeterminate*, Marx adds the remark at the end, without explanation at this point, that the working-day is *determinable*. But he will implicitly furnish an explanation in the next paragraph, 240:2/o, by giving an example of something which is *indeterminable*. To make Marx’s implicit elucidation explicit, “determinable” in the case of the length of the working-day means that

- It is practically possible to measure the length of the working day and to see whether an individual capitalist has overstepped whatever counts as the “normal” length for this society. This is not trivial. For instance, if one were to try to measure whether an individual capitalist were to overstep the ecological limits of the planet, this cannot be determined as easily.
- There are economic agents (the workers) for whom it is a survival issue to keep the working day within its limits. This again distinguishes the working-day crisis from today’s ecological crisis. Polar bears or phytoplankton do not have similar representation in society.
- Capitalism has extra-economic institutions with the authority to fix the length of the working-day; it can be fixed by law, or nowadays also by union contract.
- Such a fixation does not come in conflict with the economic laws of capitalism.
- On the contrary (and this is already the transition from the possibility to the necessity), this chapter shows that capitalism itself *needs* the working-day to be fixed.

te der Arbeitstag 8-, 10-, 12stündig usw. sein. Sie würde anzeigen, daß die zwei Bestandteile des Arbeitstags, notwendige Arbeit und Mehrarbeit, gleich groß sind, aber nicht, wie groß jeder dieser Teile.

246:1 Der Arbeitstag ist also keine konstante, sondern eine variable Größe.

Einer seiner Teile ist zwar bestimmt durch die zur beständigen Reproduktion des Arbeiters selbst erheischte Arbeitszeit, aber seine Gesamtgröße wechselt mit der Länge oder Dauer der Mehrarbeit. Der Arbeitstag ist daher bestimmbar, aber an und für sich unbestimmt.³⁵

³⁵ „Ein Arbeitstag ist eine unbestimmte Größe, er kann lang oder kurz sein.“ („An Essay on Trade and Commerce, containing Observations on Taxation etc.“, London 1770, p. 73.)

Question 824 Explain Marx's sentence: "The working-day is determinable but in and for itself indeterminate." *Answer*, 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008SP, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa.

Question 825 Would Marx agree that the minimum length of the working day is the time the worker needs to earn enough money to make a living? 2012fa.

The discussion of the variability of the working-day is not yet finished. Marx's next point is: the working-day can only vary *within certain bounds*. (These bounds might be considered the negation of the variability, i.e., the negation of the negation of the determination.)

240:2/o The working-day is therefore not a fixed, but a fluid quantity. On the other hand, it can only vary within certain bounds.

246:2/o Obgleich nun der Arbeitstag keine feste, sondern eine fließende Größe ist, kann er andererseits nur innerhalb gewisser Schranken variieren.

⇓ Now Marx makes an interesting remark. The minimum bound is elusive in the sense that it exists in theory but not in practice:

The minimum bound, however, is indeterminate. Of course, if we make the extension line B—C or the surplus-labor = 0, we have a minimum bound, i.e., the part of the day which the laborer must necessarily work for his own maintenance. On the basis of capitalist production, however, this necessary labor must always only form a part of the working-day; the working-day itself can never be reduced to this minimum.

Seine Minimalschranke ist jedoch unbestimmbar. Allerdings, setzen wir die Verlängerungslinie *bc*, oder die Mehrarbeit, = 0, so erhalten wir eine Minimalschranke, nämlich den Teil des Tags, den der Arbeiter notwendig zu seiner Selbsterhaltung arbeiten muß. Auf Grundlage der kapitalistischen Produktionsweise kann die notwendige Arbeit aber immer nur einen Teil seines Arbeitstages bilden, der Arbeitstag sich also nie auf dies Minimum verkürzen.

↑ Isn't this hairsplitting? Why does Marx make so much ado about the simple fact that the actual labor-time must always be longer than the minimum? Marx has already answered this question in the short sentence "the minimum bound is indeterminate." In other words, this simple fact prevents the minimum of the labor-day from being *determinable* in the sense explained above. There is no length of the work day which could be imposed on the capitalist economy *as a maximum* (in order to get a minimally exploitative capitalism). In *Value, Price and Profit*, [mecw20]145:5/o, Marx gives us another example of an indeterminate bound: he says that there is no minimum rate of profit because there is no maximum level of wages. Wages can never be fixed, there must and will always be struggles around wages.

Marx wrote "is indeterminate" (*ist unbestimmbar*) instead of "cannot be determined" (*kann nicht bestimmt werden*) because

this is an ontological and not an epistemological statement: it is not only impossible *for the observer* to find out what the lower bound

is, but this lower bound itself does not exist.

Perhaps Marx viewed this as another secret critique of Hegel, comparable to 52:1. If a minimum bound cannot be determined, although the working-day must be longer than necessary labor itself, then Hegel's pronouncement is incorrect that every negation is a determination. (Bhaskar [Bha93, p. 240:1] also criticizes this principle which, as he says, "is simply not true.")

Question 826 Give other secret critiques of Hegel in Marx's Capital.

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Question 827 *Could one not say that the minimum bound for the surplus-labor is enough surplus-labor that the capitalists can survive?* 2013fa, 2009fa, 2008SP, 2007SP.

The maximum bound, by contrast, *is* determinable. It is even *multiply* determined, i.e., different mechanisms kick in if the working-day is extended beyond certain threshold values: On the other hand, the working-day has a maximum bound. It cannot be prolonged beyond a certain point. This maximum bound is determined in two different ways. First, by the physiological bounds of labor-power. Within the 24 hours of the natural day a man can expend only a definite quantity of his vital force. Just as a horse can only work, from day to day, 8 hours. During part of the day this force must rest, sleep; during another part the man has to satisfy other physiological needs, to feed, wash, and clothe himself. Besides these purely physiological limits, the extension of the working-day encounters moral ones. The laborer needs time to satisfy his intellectual and social wants, the extent and number of which are conditioned by the general state of social advancement.

Dagegen besitzt der Arbeitstag eine Maximalschranke. Er ist über eine gewisse Grenze hinaus nicht verlängerbar. Diese Maximalschranke ist doppelt bestimmt. Einmal durch die physische Schranke der Arbeitskraft. Ein Mensch kann während des natürlichen Tags von 24 Stunden nur ein bestimmtes Quantum Lebenskraft verausgaben. So kann ein Pferd tagaus, tagein nur 8 Stunden arbeiten. Während eines Teils des Tags muß die Kraft ruhen, schlafen, während eines andren Teils hat der Mensch andre physische Bedürfnisse zu befriedigen, sich zu nähren, reinigen, kleiden usw. Außer dieser rein physischen Schranke stößt die Verlängerung des Arbeitstags auf moralische Schranken. Der Arbeiter braucht Zeit zur Befriedigung geistiger und sozialer Bedürfnisse, deren Umfang und Zahl durch den allgemeinen Kulturzustand bestimmt sind.

The two mechanisms enforcing a maximum bound of the working-day are located in different layers of reality:

- Physiological: the continuous functioning of the labor-power is compatible only with a certain number of hours daily.
- Cultural: the laborer needs time to satisfy intellectual and social needs.

One page later, in 242:1/o, Marx formulates the physiological limit differently: the length of the work day must be such that it does not rob the laborer of his health or shorten his life. I will call these two sides of the physiological bounds the physiological bounds I and II. In 283:1 Marx mentions a third mechanism which limited the working-day in pre-industrial times, namely, daylight.

Exam Question 829 *What are the minimal and maximal bounds for the length of the working-day, and how are they determined?* 2013fa, 2012fa, 2011fa, 2009fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa.

The variation of the working-day takes place, therefore, within physiological and social bounds. But both these bounds are of a very elastic nature, and allow the greatest latitude.

Die Variation des Arbeitstags bewegt sich daher innerhalb physischer und sozialer Schranken. Beide Schranken sind aber sehr elastischer Natur und erlauben den größten Spielraum.

↑ At the end, Marx adds yet another level of negation: the minimum and maximum bounds are not only far apart, but they themselves are also elastic. This would be the negation

of the negation of the negation. ↓ All this explains the great differences in the length of working-days that can be observed empirically.

So we find working-days of 8, 10, 12, 14, 16, 18 hours, i.e., of the most different lengths.

So finden wir Arbeitstage von 8, 10, 12, 14, 16, 18 Stunden, also von der verschiedensten Länge.

10.1.c. [Point of view of the Capitalist]

So far, Marx has discussed to what extent the length of the working-day is or is not determined by its inner anatomy. In other words, he identified the economic necessities affecting the number of hours workers have to work in a capitalist economy. Next he is asking whether and how the surface transactions between capitalist and laborer on the market *enforce* this inherent length of the working-day. The dialogue between capitalist and laborer which follows now must be taken metaphorically: the arguments given here verbally are acted out on the market place and in direct struggles (although the arguments themselves can also be found in the literature, as the footnotes demonstrate).

Throughout chapter Ten, Marx maintains the fiction that the daily wage is agreed upon first, and then afterwards capitalist and worker argue about it how long the worker has to work for this wage. Of course, the details of the transactions between worker and capitalist on the surface of the economy seem to be different: the wage is paid as hourly wage or piece wage, therefore it seems as if the daily wage was not fixed but that it was proportional to the amount of labor performed.

On the other hand, the employee usually cannot decide how many hours of labor he or she is to perform: the length of the work day is given, and therefore the daily wage is given once we know what the hourly wage is. In practice, today's procedure with a fixed hourly wage but no substantial choice regarding the number of hours worked has therefore the same outcome as Marx's daily-wage bargain. If one looks at the data one will also not find proportionality between labor-time and wages; on the contrary, there are many low wage jobs which "compensate" for their low wages by long hours (see).

Marx claims that this is not an accident. The connection between labor and wage is not that wages are proportional to labor performed, but wages are an amount determined by the worker's cost of living, and the length of the work day is, just as the precise definition of the worker's cost of living, the result of struggles between capitalists and the working class. The hourly wage can then be computed by dividing the daily wage by the daily work requirement resulting from these class struggles. This theory of wages will be developed in chapter Nineteen.

Marx's fiction that worker and capitalist first decide on a daily wage and then argue how long the worker has to work is therefore justified: although it contradicts the details of the surface transactions, it captures the structure of the underlying processes mediated by these surface transactions better than the actual surface transactions themselves.

241:1–4 The capitalist has bought the labor-power at its day-rate. To him its use-value belongs during one working-day. He has thus acquired the right to make the laborer work for him during one day. But, what is a working-day?³⁶

247:1 Der Kapitalist hat die Arbeitskraft zu ihrem Tageswert gekauft. Ihm gehört ihr Gebrauchswert während eines Arbeitstags. Er hat also das Recht erlangt, den Arbeiter während eines Tags für sich arbeiten zu lassen. Aber was ist ein Arbeitstag?³⁶

³⁶ This question is far more important than the celebrated question of Sir Robert Peel to the

³⁶ Diese Frage ist unendlich wichtiger als die berühmte Frage Sir Robert Peels an die Birming-

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Birmingham Chamber of Commerce: What is a pound? A question that could only have been proposed, because Peel was as much in the dark as to the nature of money as the “little shilling men” of Birmingham.

hamer Handelskammer „What is a pound?“ eine Frage, die nur gestellt werden konnte, weil Peel über die Natur des Geldes ebenso unklar war als die „little shilling men“ von Birmingham.

Marx answers this important question in several steps.

At all events, less than a natural day. By how much?

Jedenfalls weniger als ein natürlicher Lebenstag. Um wieviel?

If the working-day amounted to 24 hours this would be slavery. Capitalism is not slavery but it is based on commodity exchange, a transaction to which both parties voluntarily agree. Marx discusses therefore now the motivations of the two exchange partners, first those of the capitalist.

The capitalist has his own views of this *ultima Thule*, the necessary limit of the working-day.

Der Kapitalist hat seine eigene Ansicht über dies *ultima Thule*, die notwendige Schranke des Arbeitstags.

The capitalist’s reasons for the exchange are different than the worker’s. But before the reader can get the impression that Marx is giving a too sinister view of the inhumane goals of the capitalist, Marx interjects that the capitalist’s motivations do not stem from human motives but from the tendencies of the social entity he or she represents:

As capitalist, he is only capital personified. His soul is the soul of capital.

Als Kapitalist ist er nur personifiziertes Kapital. Seine Seele ist die Kapitalseele.

↑ This is reminiscent of 10:1. ↓ The driving force is capital, not the capitalist.

Capital, in turn, has one single-minded life impulse, the drive to create value and surplus-value, to make its constant portion, the means of production, absorb the greatest possible amount of surplus-labor.³⁷ Capital is dead labor, that, vampire-like, only lives by sucking living labor, and lives the more, the more labor it sucks.

Das Kapital hat aber einen einzigen Lebenstrieb, den Trieb, sich zu verwerthen, Mehrwert zu schaffen, mit seinem konstanten Teil, den Produktionsmitteln, die größtmögliche Masse Mehrarbeit einzusaugen.³⁷ Das Kapital ist verstorbene Arbeit, die sich nur vampyrmäßig belebt durch Einsaugung lebendiger Arbeit und um so mehr lebt, je mehr sie davon einsaugt.

³⁷ “It is the aim of the capitalist to obtain with his expended capital the greatest possible quantity of labor (d’obtenir du capital dépensé la plus forte somme de travail possible). J. G. Courcelle-Seneuil. “Traité théorique et pratique des entreprises industrielles.” 2nd ed., Paris, 1857, p. 63.

³⁷ „Es ist die Aufgabe des Kapitalisten, mit dem verausgabten Kapital die größtmögliche Summe Arbeit herauszuschlagen.“ („D’obtenir du capital dépensé la plus forte somme de travail possible.“) (J.-G. Courcelle-Seneuil, „Traité théorique et pratique des entreprises industrielles“, 2ème édit., Paris 1857, p. 62.)

Notice that the capitalist is not greedy; he represents the social force of value in motion, self-aggrandizing value. He does not say to the worker: “I have come to steal as much surplus labor as I can from you,” or “I am the vampire who needs your blood to come to life” or “I am stronger than you, you have to work for me.” On the contrary, he comes with the surprising claim that it is the *worker* who is robbing the capitalist and not the other way around—whenever the worker uses any of his disposable time for himself:

The time during which the laborer works is the time during which the capitalist consumes the labor-power he has purchased of him.³⁸ If the laborer consumes his

Die Zeit, während deren der Arbeiter arbeitet, ist die Zeit, während deren der Kapitalist die von ihm gekaufte Arbeitskraft konsumiert.³⁸ Konsumiert der Arbeiter sei-

disposable time for himself, he robs the capitalist.³⁹

ne disponible Zeit für sich selbst, so bestiehlt er den Kapitalisten.³⁹

Marx is not making this up. The footnotes show that it has actually been said that the worker is robbing the capitalist:

³⁸ “An hour’s labor lost in a day is a prodigious injury to a commercial State.” “There is a very great consumption of luxuries among the laboring poor of this kingdom: particularly among the manufacturing populace, by which they also consume their time, the most fatal of consumptions.” [Ano70, pp. 47, 153]

³⁸ „Der Verlust einer Arbeitsstunde pro Tag stellt einen außerordentlich großen Schaden für einen Handelsstaat dar.“ „Der Konsum von Luxusgütern unter den arbeitenden Armen dieses Königsreichs ist sehr groß; besonders unter dem Manufakturpöbel: dabei konsumieren sie aber auch ihre Zeit, ein Verbrauch, verhängnisvoller als jeder andre.“ [Ano70, p. 47 u. 153]

³⁹ If the free worker rests for an instant, the base and petty management which watches over him with wary eyes claims he is stealing from it. N. Linguet, “Théorie des Lois Civiles. etc.” London, 1767, t. II., p. 466.

³⁹ „Wenn sich der freie Tagelöhner einen Augenblick ausruht, behauptet die schmutzige Ökonomie, die ihn mit unruhigen Augen verfolgt, daß er sie bestehle.“ (N. Linguet, „Theorie des Loix Civiles etc.“, London 1767, t. II, p. 466.)

The capitalist is robbing the worker under such circumstances that he can find reasons to say and think that it is the worker who is robbing the capitalist. What are these circumstances? The supposedly free and equal exchange on the market:

241:5/o In other words, the capitalist appeals to the law of the exchange of commodities. He, like all other buyers, seeks to get the greatest possible benefit out of the use-value of his commodity.

247:2/o Der Kapitalist beruft sich also auf das Gesetz des Warenaustausches. Er, wie jeder andre Käufer, sucht den größtmöglichen Nutzen aus dem Gebrauchswert seiner Ware herauszuschlagen.

Of course, the capitalist’s intentions have weight only because he has the resources to back them with action. If he does not make profits, he has the option to close down the factory. He has the monopoly over the means of production.

Question 830 *What is the source of the paradox that on the surface, the worker robs the capitalist during every minute he rests, while in reality the capitalist robs the worker?* 2012fa, 2007fa, 2007SP, 2004fa, 2003fa, 2002fa.

Question 831 *How long is the working-day from the point of view of the capitalist?* 2012fa, 2011fa, 2010fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa.

10.1.d. [Point of view of the Worker]

The worker replies only after a delay:

Suddenly the voice of the laborer, which had been silenced in the storm and stress of the process of production, rises:

Plötzlich aber erhebt sich die Stimme des Arbeiters, die im Sturm und Drang des Produktionsprozesses verstummt war:

It often takes a sustained attack by the capitalist class before the working class, which is at first overwhelmed by the onslaught of capital, rallies and begins to fight back. Compare 283:2–284:1. The working class is also reactive on a deeper level: it uses the commodity form with much less enthusiasm than the capitalist class because this is not the form by which it can attain its goals. The market place is a battlefield which the workers would not choose, because there is no hope for a level playing field.

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As in the case of the capitalist, Marx first looks at the worker's goals before asking how the market transaction can be used to attain these goals. These goals are formulated most succinctly in *Value, Price, and Profit*, [mecw20]141:1:

He sells his laboring power in order to maintain it, apart from its natural wear and tear, not in order to destroy it.

Question 832 *Isn't it the motive of the worker, like that of the capitalist, to get as much money as possible?* 2013fa, 2010fa, 2009fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa.

In *Capital*, the worker does not state his goals at the beginning, but first describes how he is affected by the actions of the capitalists. Additional profits for the capitalist mean more labor for him:

242:1/o The commodity that I have sold you differs from the crowd of other commodities, in that its use creates value, and a value greater than its own. That is why you bought it.

248:1/o Die Ware, die ich dir verkauft habe, unterscheidet sich von dem andren Warenpöbel dadurch, daß ihr Gebrauch Wert schafft und größeren Wert, als sie selbst kostet. Dies war der Grund, warum du sie kauftest.

↑ Note that the worker does not criticize the capitalist for getting more value out of the use of his labor-power than what the worker was paid for this labor-power. On the contrary, he acknowledges that the capitalist has bought his labor-power exactly for that reason. The worker's entire argument is based on the laws of commodity exchange and, as Marx says in , the laws of commodity exchange are unable to reflect class relations. Instead of saying to the capitalist "you should not exploit me" the worker derives from the laws of commodity exchange themselves limits to the use of his labor-power by the capitalist. In general, the consumption of the use-value of a commodity is the commodity owner's sole prerogative, nobody can make prescriptions about this. But in this case, this is not an absolute because the seller of the commodity labor-power is still involved in and affected by the consumption by the capitalist of the commodity he has sold to him. ↓ This is the first thing the worker says:

That which on your side appears as the valorization of capital, is on mine extra expenditure of labor-power.

Was auf deiner Seite als Verwertung von Kapital erscheint, ist auf meiner Seite überschüssige Verausgabung von Arbeitskraft.

↑ This is a reference to chapter Seven, 205:3/o, that the valorization process is nothing but a labor process prolonged past a given point. ↓ As a counterpoint to this initial statement the worker concedes that exploitation does not violate the laws of the commodity exchange. The buyer of the labor-power has the right to use his commodity as he sees fit—but only, as we will see shortly, within limits.

You and I know on the market only one law, that of the exchange of commodities. And the consumption of the commodity belongs not to the seller who parts with it, but to the buyer, who acquires it. To you, therefore, belongs the use of my daily labor-power.

Du und ich kennen auf dem Marktplatz nur ein Gesetz, das des Warenaustausches. Und der Konsum er Ware gehört nicht dem Verkäufer, der sie veräußert, sondern dem Käufer, der sie erwirbt. Dir gehört daher der Gebrauch meiner täglichen Arbeitskraft.

The laws of commodity exchange forbid the worker to argue with the capitalist how to use his labor-power, since he sold it to him. ↓ Now comes the big "but" where the worker

derives, from the laws of commodity exchange themselves, a limit to the use of his labor-power by the capitalist.

But by means of the price that you pay for it each day, I must be able to reproduce it daily, and to sell it again. Apart from natural exhaustion through age, etc., I must be able on the morrow to work with the same normal amount of force, health and freshness as today.

Aber vermitteltst ihres täglichen Verkaufspreises muß ich sie täglich reproduzieren und daher von neuem verkaufen können. Abgesehen von dem natürlichen Verschleiß durch Alter usw., muß ich fähig sein, morgen mit demselben Normalzustand von Kraft, Gesundheit und Frische zu arbeiten, wie heute.

Here the worker defines the use-value he is selling: only as much use of his labor-power as can be reproduced fully so that he can sell an identical labor-power on the next day. To justify this, he uses to his advantage the capitalist's frequent admonitions of thrift:

You preach to me constantly the gospel of "saving" and "abstinence." Good! I will, like a sensible saving owner, husband my sole wealth, labor-power, and abstain from all foolish waste of it. I will each day spend, set in motion, put into action only as much of it as is compatible with its normal duration and healthy development.

Du predigst mir beständig das Evangelium der „Sparsamkeit“ und „Enthaltung“. Nun gut! Ich will wie ein vernünftiger, sparsamer Wirt mein einziges Vermögen, die Arbeitskraft, haushalten und mich jeder tollen Verschwendung derselben enthalten. Ich will täglich nur soviel von ihr flüssig machen, in Bewegung, in Arbeit umsetzen, als sich mit ihrer Normaldauer und gesunden Entwicklung verträgt.

“My sole wealth” is a brief allusion at the class difference.

By an unlimited extension of the working-day, you may in one day use up a quantity of labor-power greater than I can restore in three. What you gain in labor I lose in substance.

Durch maßlose Verlängerung des Arbeitstags kannst du in einem Tage ein größeres Quantum meiner Arbeitskraft flüssig machen, als ich in drei Tagen ersetzen kann. Was du so an Arbeit gewinnst, verliere ich an Arbeitssubstanz.

↑ So far, Marx has argued that this contract violates the law of value because the capitalist is taking something the worker has not agreed to give. The worker has agreed to sell the normal use of his labor-power but not his own “substance.” ↓ Next Marx asks the hypothetical question: what if the worker agreed to sell his or her own substance? In a pinch, many workers may think this is the only option they have. Here Marx makes another point: the sale of this substance without a drastic increase in the regular wage is “spoliation” because a regular wage is a much too low price for this substance:

The use of my labor-power and the spoliation of it are quite different things. If the average time that (doing a reasonable amount of work) an average laborer can live, is 30 years, the value of my labor-power, which you pay me from day to day, is $\frac{1}{365 \times 30}$ or 1/10950 of its total value. But if you consume it in 10 years, you pay me daily 1/10950 instead of 1/3650 of its total value, i.e., only 1/3 of its daily value, and you rob

Die Benutzung meiner Arbeitskraft und die Beraubung derselben sind ganz verschiedene Dinge. Wenn die Durchschnittsperiode, die ein Durchschnittsarbeiter bei vernünftigem Arbeitsmaß leben kann, 30 Jahre beträgt, ist der Wert meiner Arbeitskraft, den du mir einen Tag in den andren zahlst, $\frac{1}{365 \times 30}$ oder 1/10950 ihres Gesamtwerts. Konsumierst du sie aber in 10 Jahren, so zahlst du mir täglich 1/10950 statt 1/3650 ihres Gesamt-

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me, therefore, every day of $\frac{2}{3}$ of the value of my commodity. You pay me for one day's labor-power, whilst you use that of 3 days. That is against our contract and the law of exchanges.

werts, also nur $\frac{1}{3}$ ihres Tageswerts, und stiehlt mir daher täglich $\frac{2}{3}$ des Werts meiner Ware. Du zahlst mir eintägige Arbeitskraft, wo du dreitägige verbrauchst. Das ist wider unsren Vertrag und das Gesetz des Warenaustausches.

This additional argument comes to the same 1 for 3 ratio which appeared for the first time at the end of the previous paragraph. Marx does not say here that the capitalist would have the right to work the worker to death if he paid him enough, but on the contrary, the magnitude of the wage is an additional argument showing that the capitalist does not have the right to overwork the worker. This is a transition from quantity to quality: the quantity of wages has here qualitative implications.

Question 834 *How does the worker derive from the laws of commodity exchange a limit to the use of his labor-power by the capitalist?* 2004fa.

This concludes the worker's argument, which derives purely from the laws of commodity exchange, not from any other consideration, that capitalist is allowed to drive the worker to full exhaustion every day.

I demand, therefore, a working-day of normal length, and I demand it without any appeal to your heart, for in money matters sentiment is out of place.

Ich verlange also einen Arbeitstag von normaler Länge, und ich verlange ihn ohne Appell an dein Herz, denn in Geldsachen hört die Gemütlichkeit auf.

The worker ends his plea with an allusion to the "humanitarian" image in which the capitalist likes to see himself. But instead of saying: you picture yourself as good but are really cruel, he abstains from moralizing. He merely points out that the capitalist represents principles which have nothing to do with human considerations.

You may be a model citizen, perhaps a member of the Society for the Prevention of Cruelty to Animals, and in the odor of sanctity to boot; but the thing that you represent against me has no heart in its breast.

Du magst ein Musterbürger sein, vielleicht Mitglied des Vereins zur Abschaffung der Tierquälerei und obendrein im Geruch der Heiligkeit stehn, aber dem Ding, das du mir gegenüber repräsentierst, schlägt kein Herz in seiner Brust.

Despite the irony regarding the capitalist's saintness, the worker importantly distinguishes between the capitalist as person, about whose morality he is agnostic, and the capitalist as the character mask of capital.

That which seems to throb there is my own heart-beating.

Was darin zu pochen scheint, ist mein eigener Herzschlag.

Capital has so much vitality that it seems to have a heart throbbing in its chest: but it draws its energy not from its own heart, it is rather the worker's heart which gives life to capital.

I demand the normal working-day because I, like every other seller, demand the value of my commodity.⁴⁰

Ich verlange den Normalarbeitstag, weil ich den Wert meiner Ware verlange, wie jeder andre Verkäufer.⁴⁰

⁴⁰ During the great strike of the London builders, 1860–61, for the reduction of the working-day to 9 hours, their Committee published a manifesto that contained, to some extent, the plea of our worker. The manifesto alludes,

⁴⁰ Während des großen strike der London builders, 1860–1861, zur Reduktion des Arbeitstags auf 9 Stunden, veröffentlichte ihr Komitee eine Erklärung, die halb und halb auf das Plaidoyer unsres Arbeiters hinausläuft. Die Er-

not without irony, to the fact, that the greatest profit-monger amongst the building masters, a certain Sir M. Peto, was in the odour of sanctity (This same Peto, after 1867, came to an end a la Strousberg.)

klärung spielt nicht ohne Ironie darauf an, daß der Profitwütigste der „building masters“—ein gewisser Sir M. Peto—im „Geruch der Heiligkeit“ stehe. (Derselbe Peto kam nach 1867 zu einem Ende mit—Strousberg!)

Question 835 *Why did the worker in this whole argument never say to the capitalist “you are exploiting me”?* 2012fa, 2011fa, 2010fa, 2008fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2000fa.

Question 836 *According to mainstream economics, one of the most important factors influencing the worker’s choice how long he or she wants to work is the hourly wage. Which role does the hourly wage pay in Marx’s working-day chapter?* 2007SP.

10.1.e. [Conclusion: Right Against Right]

Although capitalist exploitation is squarely based on commodity exchange (it owes its effectiveness and resiliency to it), one important aspect of exploitation, the length of the working-day, is left indeterminate by the laws of commodity exchange:

243:1 We see, then: the nature of commodity exchange itself imposes no limits on the working-day, i.e., no limits on surplus labor, except for extremely elastic bounds.

249:1 Man sieht: Von ganz elastischen Schranken abgesehen, ergibt sich aus der Natur des Warenaustausches selbst keine Grenze des Arbeitstags, also keine Grenze der Mehrarbeit.

↑ Marx writes “nature of the commodity exchange *itself*” because he is talking about the surface of the economy, the sphere of exchange, as opposed to the core relations governing production. ↓ On the market, capital and labor interact as buyers and sellers of commodities. The capitalist maintains his rights as a purchaser when he tries to make the working-day as long as possible, and to make, whenever possible, two working-days out of one. On the other hand, the peculiar nature of the commodity sold implies a limit to its consumption by the purchaser, and the laborer maintains his right as seller when he wishes to reduce the working-day to one of definite normal duration. There is here, therefore, an antinomy, right against right, both equally bearing the seal of the law of exchanges.

Der Kapitalist behauptet sein Recht als Käufer, wenn er den Arbeitstag so lang als möglich und womöglich aus einem Arbeitstag zwei zu machen sucht. Andererseits schließt die spezifische Natur der verkauften Ware eine Schranke ihres Konsums durch den Käufer ein, und der Arbeiter behauptet sein Recht als Verkäufer, wenn er den Arbeitstag auf eine bestimmte Normalgröße beschränken will. Es findet hier also eine Antinomie statt, Recht wider Recht, beide gleichmäßig durch das Gesetz des Warenaustausches besiegelt.

Question 837 *Which “peculiarity” in the nature of labor-power implies a limit to its consumption by the capitalist?* 2007SP, 2005fa, 2003fa.

Question 838 *How can rights get into contradiction with each other?* 2013fa, 2007SP.

This vacuum is filled by class struggle (and institutionalized congelations of class struggle: trade unions and the state).

Between equal rights force decides. Hence is it that in the history of capitalist produc-

Zwischen gleichen Rechten entscheidet die Gewalt. Und so stellt sich in der Geschich-

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tion, the determination of what is a working-day, presents itself as a struggle, a struggle between collective capital, *i.e.*, the class of capitalists, and collective labor, *i.e.*, the working-class.

te der kapitalistischen Produktion die Normierung des Arbeitstags als Kampf um die Schranken des Arbeitstags dar—ein Kampf zwischen dem Gesamtkapitalisten, d.h. der Klasse der Kapitalisten, und dem Gesamtarbeiter, oder der Arbeiterklasse.

Question 839 *Discuss the points of view of capitalist and laborer in the dispute around the length of the working-day. Why can this dispute only be resolved by force?* 2007fa.

Question 840 *Why is a struggle of classes, not of competing individuals, necessary to define the working-day?* 2007SP.

10.2. The Thirst for Surplus Labor. Manufacturer and Boyard

243:2/o Capital has not invented surplus-labor. Wherever a part of society possesses the monopoly of the means of production, the laborer, free or not free, must add to the working time necessary for his own maintenance an extra working time in order to produce the means of subsistence for the owners of the means of production,⁴¹ whether this proprietor be the Athenian καλὸς κ'ἀγαθός, Etruscan theocrat, civis Romanus, Norman baron, American slave-owner, Wallachian Boyard, modern landlord or capitalist.⁴²

⁴¹ “Those who labor . . . in reality feed both the pensioners . . . [called the rich] and themselves.” Edmund Burke [Bur00, p. 2, 3]

249:2/o Das Kapital hat die Mehrarbeit nicht erfunden. Überall, wo ein Teil der Gesellschaft das Monopol der Produktionsmittel besitzt, muß der Arbeiter, frei oder unfrei, der zu seiner Selbsterhaltung notwendigen Arbeitszeit überschüssige Arbeitszeit zusetzen, um die Lebensmittel für den Eigener der Produktionsmittel zu produzieren,⁴¹ sei dieser Eigentümer nun atheniensischer καλὸς κ'ἀγαθός, etruskischer Theokrat, civis romanus, normännischer Baron, amerikanischer Sklavenhalter, walachischer Boyar, moderner Landlord oder Kapitalist.⁴²

⁴¹ „Diejenigen, die arbeiten . . ., ernähren in Wirklichkeit sowohl die Pensionäre, genannt die Reichen, als auch sich selbst.“ Edmund Burke [Bur00, p. 2, 3]

According to footnote 42, evidence of this exploitation are the “astounding” use-values produced by the surplus labor:

⁴² Niebuhr in his “Roman History” says very naively: “It is evident that works like the Etruscan, which in their ruins astound us, presuppose in little (!) states lords and vassals.” Sismondi says far more profoundly that “Brussels lace” pre-supposes wage-lords and wage-slaves.

⁴² Sehr naiv bemerkt Niebuhr in seiner „Römischen Geschichte“: „Man kann sich nicht verhehlen, daß Werke wie die etruskischen, die in ihren Trümmern erstaunen, in kleinen (!) Staaten Fronherrschaft und Knechte voraussetzen.“ Viel tiefer sagte Sismondi daß „Brüsseler Spitzen“ Lohnherrschaft und Lohndiener voraussetzen.

Surplus labor is not new in capitalism. But capitalism does bring something new:

It is, however, clear that in any given economic formation of society, where not the exchange-value but the use-value of the product predominates, surplus-labor will

Indes ist klar, daß, wenn in einer ökonomischen Gesellschaftsformation nicht der Tauschwert, sondern der Gebrauchswert des Produkts vorwiegt, die Mehrarbeit durch

be circumscribed by a given set of wants which may be greater or less, that therefore no boundless thirst for surplus-labor arises from the characteristic form of production itself.

einen engern oder weitem Kreis von Bedürfnissen beschränkt ist, aber kein schrankenloses Bedürfnis nach Mehrarbeit aus dem Charakter der Produktion selbst entspringt.

In the one situation where production in antiquity was motivated by exchange-value instead of use-value, the exploitation of slaves was much more barbaric and horrible than elsewhere:

Hence in antiquity over-work becomes horrible only when the object is to obtain exchange-value in its specific independent money-form; in the production of gold and silver. Compulsory working to death is here the recognised form of over-work. Just read Diodorus Siculus.⁴³

Entsetzlich zeigt sich daher im Altertum die Überarbeit, wo es gilt, den Tauschwert in seiner selbständigen Geldgestalt zu gewinnen, in der Produktion von Gold und Silber. Gewaltsames zu Tod arbeiten ist hier die offizielle Form der Überarbeit. Man lese nur den Diodorus Siculus.⁴³

⁴³ "One cannot see these unfortunates (in the gold mines between Egypt, Ethiopia, and Arabia) who cannot even have their bodies clean, or their nakedness clothed, without pitying their miserable lot. There is no indulgence, no forbearance for the sick, the feeble, the aged, for woman's weakness. All must, forced by blows, work on until death puts an end to their sufferings and their distress." ("Diod. Sic. Bibl. Hist.," lib. 2, c. 13, [p. 260].)

⁴³ „Man kann diese Unglücklichen“ (in den Goldbergwerken zwischen Ägypten, Äthiopien und Arabien), „die nicht einmal ihren Körper reinlich halten noch ihre Blöße decken können, nicht ansehen, ohne ihr jammervolles Schicksal zu beklagen. Denn da findet keine Nachsicht und keine Schonung statt für Kranke, für Gebrechliche, für Greise, für die weibliche Schwachheit. Alle müssen, durch Schläge gezwungen, fortarbeiten, bis der Tod ihren Qualen und ihrer Not ein Ende macht.“ (Diod. Sic. „Historische Bibliothek“, Buch 3, c. 13, [p. 260].)

↑ The gold mines are evidence that production for value rather than use-value leads to overwork. ↓ In antiquity, production for value was only an exception.

Yet these are exceptions in antiquity.

Doch sind dies Ausnahmen in der alten Welt.

↓ In more recent history, similar horrors became typical when traditional coercive relations of exploitation were drawn into the capitalist world market. Here a second difference between the old relations and capitalism comes into play: the old relations are based on direct coercion, while capitalism is based on free sale of labor-power.

But as soon as peoples, whose production still moves within the lower forms of slave-labor, corvée-labor, etc., are drawn into the whirlpool of an international market dominated by the capitalist mode of production, the sale of their products for export becoming their principal interest, then the civilized horrors of overwork are grafted on the barbaric horrors of slavery, serfdom, etc.

Sobald aber Völker, deren Produktion sich noch in den niedrigsten Formen der Sklavenarbeit, Fronarbeit usw. bewegt, hineingezogen werden in einen durch die kapitalistische Produktionsweise beherrschten Weltmarkt, der den Verkauf ihrer Produkte ins Ausland zum vorwiegenden Interesse entwickelt, wird den barbarischen Greueln der Sklaverei, Leibeigenschaft usw. der zivilisierte Greuel der Überarbeit aufgepfropft.

↓ Slavery in the USA is an important example of this:

Hence the negro labor in the Southern States of the American Union preserved something

Daher bewahrte die Negerarbeit in den südlichen Staaten der amerikanischen Uni-

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of a patriarchal character, so long as production was chiefly directed to immediate local consumption. But in proportion, as the export of cotton became of vital interest to these states, the over-working of the negro and sometimes the using up of his life in 7 years of labor became a factor in a calculated and calculating system. It was no longer a question of obtaining from him a certain quantity of useful products. It was now a question of production of surplus-value itself.

↓ Slavery is not the only example.

So was it also with the *corvée*, e.g., in the Danubian Principalities (now Romania).

on einen gemäßigt patriarchalischen Charakter, solange die Produktion hauptsächlich auf den unmittelbaren Selbstbedarf gerichtet war. In dem Grade aber, wie der Baumwoll-export zum Lebensinteresse jener Staaten, ward die Überarbeitung des Negers, hier und da die Konsumtion seines Lebens in sieben Arbeitsjahren, Faktor eines berechneten und berechnenden Systems. Es galt nicht mehr, eine gewisse Masse nützlicher Produkte aus ihm herauszuschlagen. Es galt nun der Produktion des Mehrwerts selbst.

Ähnlich mit der Fronarbeit, z.B. in den Donaufürstentümern.

Question 843 *What are the main differences distinguishing capitalism from earlier forms of exploitation?* 2013fa, 2010fa, 2007fa, 2005fa.

Question 844 *How did pre-capitalistic forms of exploitation change when they came into contact with capitalism (slave-labor, *corvée*-labor)?* 2013fa, 2007fa.

The remainder of this section is a detailed comparison between the *corvée* system and capitalism.

First Marx explains why such a comparison is interesting: (1) In both situations the state steps in in order to regulate exploitation.

244:1 The comparison of the greed for surplus-labor in the Danubian Principalities with the same greed in English factories has a special interest, because surplus-labor in the *corvée* has an independent and empirically ascertainable form.

250:1/o Die Vergleichung des Heißhunger nach Mehrarbeit in den Donaufürstentümern mit demselben Heißhunger in englischen Fabriken bietet ein besonderes Interesse, weil die Mehrarbeit in der Fronarbeit eine selbständige, sinnlich wahrnehmbare Form besitzt.

(2) In *corvée*, surplus-labor is clearly identifiable, while in capitalism it is not.

244:2/o Suppose the working-day consists of 6 hours of necessary labor, and 6 hours of surplus-labor.

251:1 Gesetz, der Arbeitstag zähle 6 Stunden notwendiger Arbeit und 6 Stunden Mehrarbeit.

↓ In capitalism, it is undecided when exactly the surplus-labor occurs:

Then the free laborer gives the capitalist every week 6×6 or 36 hours of surplus-labor. It is the same as if he worked 3 days in the week for himself, and 3 days in the week gratis for the capitalist. But this is not visible. Surplus-labor and necessary labor glide one into the other. I can, therefore, express the same relationship by saying, e.g., that the laborer in every minute works 30 seconds for himself, and 30 for the capitalist, etc.

So liefert der freie Arbeiter dem Kapitalisten wöchentlich 6×6 oder 36 Stunden Mehrarbeit. Es ist dasselbe, als arbeite er 3 Tage in der Woche für sich und 3 Tage in der Woche umsonst für den Kapitalisten. Aber dies ist nicht sichtbar. Mehrarbeit und notwendige Arbeit verschwimmen ineinander. Ich kann daher dasselbe Verhältnis z.B. auch so ausdrücken, daß der Arbeiter in jeder Minute 30 Sekunden für sich und 30 Sekunden für den Kapitalisten arbeitet usw.

↓ But in corée, necessary labor and surplus-labor are separated clearly.

It is otherwise with the corvée. The necessary labor which the Wallachian peasant performs for his own maintenance is distinctly marked off from his surplus-labor on behalf of the Boyard. The one he does on his own field, the other on the seignorial estate. Both parts of the labor-time exist, therefore, independently, side by side one with the other. In the corvée the surplus-labor is clearly marked off from the necessary labor.

Anders mit der Fronarbeit. Die notwendige Arbeit, die z.B. der walachische Bauer zu seiner Selbsterhaltung verrichtet, ist räumlich getrennt von seiner Mehrarbeit für den Bojaren. Die eine verrichtet er auf seinem eignen Felde, die andre auf dem herrschaftlichen Gut. Beide Teile der Arbeitszeit existieren daher selbständig nebeneinander. In der Form der Fronarbeit ist die Mehrarbeit genau abgeschieden von der notwendigen Arbeit.

↓ This formal difference does not affect the quantitative relation between necessary and surplus labor:

Question 846 Marx says that in capitalism, necessary labor and surplus-labor “glide” into each other; one might also give the translation that they are “intermixed” or “blurred” (verschwimmen ineinander). What does this mean? 2007SP.

This difference in the form of appearance, however, can obviously make no difference with regard to the quantitative relation of surplus-labor to necessary labor. Three days’ surplus-labor in the week remain three days that yield no equivalent to the laborer himself, whether it be called corvée or wage-labor.

An dem quantitativen Verhältnis von Mehrarbeit und notwendiger Arbeit ändert diese verschiedene Erscheinungsform offenbar nichts. Drei Tage Mehrarbeit in der Woche bleiben drei Tage Arbeit, die kein Äquivalent für den Arbeiter selbst bildet, ob sie Fronarbeit heiße oder Lohnarbeit.

↓ However this formal difference, that in capitalism surplus labor is intermixed with necessary labor, while in feudalism they are clearly separated, leads to a difference in the form of the “chase after surplus labor.”

But in the capitalist the greed for surplus-labor appears in the straining after an unlimited extension of the working-day, in the Boyard more simply in a direct hunting after days of corvée.⁴⁴

Bei dem Kapitalisten jedoch erscheint der Heißhunger nach Mehrarbeit im Drang zu maßloser Verlängerung des Arbeitstags, bei dem Bojaren einfacher in unmittelbarer Jagd auf Frontage.⁴⁴

⁴⁴ That which follows refers to the situation in the Romanian provinces before the change effected since the Crimean war.

⁴⁴ Das Nachfolgende bezieht sich auf die Zustände der rumänischen Provinzen, wie sie sich vor der Umwälzung seit dem Krimkrieg gestaltet hatten.

(3) Another reason why a comparison with Corvée will give us a better understanding of capitalism is that Corvée is based on open coercion, while the coercion in capitalism goes through the “dull compulsion of economic laws.” This is such an obvious point that Marx does not specifically say it.

↓ After this justification why Corvée labor should be discussed, this discussion itself begins.

245:1/o In the Danubian Principalities the corvée was accompanied by rents in kind and other appurtenances of serfdom,

251:2–253:1 Die Fronarbeit war in den Donaufürstentümern verknüpft mit Naturalrenten und sonstigem Zubehör von Leib-

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but *corvée* constituted the most important tribute paid to the ruling class. Whenever this was the case, the *corvée* rarely arose from serfdom; serfdom much more frequently on the other hand took origin from the *corvée*.^{44a}

In Romania, for instance, the sequence was: labor for the common land was turned into labor for the thieves of the common land, and bondage developed afterwards.

Footnote 44a by Engels shows that Romania was not the only place where serfdom has been re-introduced. Similar developments can also be found elsewhere:

^{44a} {This holds likewise for Germany, and especially for Prussia east of the Elbe. In the 15th century the German peasant was nearly everywhere a man, who, whilst subject to certain rents paid in produce and labor was otherwise at least practically free. The German colonists in Brandenburg, Pomerania, Silesia, and Eastern Prussia, were even legally acknowledged as free men. The victory of the nobility in the peasants' war put an end to that. Not only were the conquered South German peasants again enslaved. From the middle of the 16th century the peasants of Eastern Prussia, Brandenburg, Pomerania, and Silesia, and soon after the free peasants of Schleswig-Holstein were degraded to the condition of serfs. (Maurer, *Fronhöfe* iv. vol.,—Meitzen, "Der Boden des preussischen Staats"—Hanssen, "Leibeigenschaft in Schleswig-Holstein.")—F. E.)}

↓ Specific history of *corvée* (forced labor) in Romania:

This is what took place in the Romanian provinces. Their original mode of production was based on community of the soil, but not in the Slavonic or even Indian form. Part of the land was cultivated in severally as freehold by the members of the community, another part—*ager publicus*—was cultivated by them in common. The products of this common labor served partly as a reserve fund against bad harvests and other accidents, partly as a public store for providing the costs of war, religion, and other common expenses. In course of time military and clerical dignitaries usurped, along with the common land, the labor spent upon it. The labor of the free peasants on their common land was transformed into *corvée* for the thieves of the common land. This *corvée* soon developed into a servile relationship

eigenschaft, bildete aber den entscheidenden Tribut an die herrschende Klasse. Wo dies der Fall, entsprang die Fronarbeit selten aus der Leibeigenschaft, Leibeigenschaft vielmehr meist umgekehrt aus der Fronarbeit.^{44a}

^{44a} {Note zur 3. Aufl.—Dies gilt ebenfalls für Deutschland und speziell für das ostelbische Preußen. Im 15. Jahrhundert war der deutsche Bauer fast überall ein gewissen Leistungen in Produkt und Arbeit unterworfenen, aber sonst wenigstens faktisch freier Mann. Die deutschen Kolonisten in Brandenburg, Pommern, Schlesien und Ostpreußen waren sogar rechtlich als Freie anerkannt. Der Sieg des Adels im Bauernkrieg machte dem ein Ende. Nicht nur die besiegten süddeutschen Bauern wurden wieder leibeigen. Schon seit Mitte des 16. Jahrhunderts werden die ostpreußischen, brandenburgischen, pommerschen und schlesischen, und bald darauf auch die schleswig-holsteinischen freien Bauern zu Leibeignen erniedrigt. (Maurer, "Fronhöfe", IV. Bd.—Meitzen, "Der Boden des Pr. Staats"—Hanssen, "Leibeigenschaft in Schleswig-Holstein.")—F. E.}

So in den rumänischen Provinzen. Ihre ursprüngliche Produktionsweise war auf Gemeineigentum gegründet, aber nicht auf Gemeineigentum in slawischer oder gar indischer Form. Ein Teil der Ländereien wurde als freies Privateigentum von den Mitgliedern der Gemeinde selbständig bewirtschaftet, ein anderer Teil—der *ager publicus*—gemeinsam von ihnen bestellt. Die Produkte dieser gemeinsamen Arbeit dienten teils als Reservefonds für Mißernten und andre Zufälle, teils als Staatsschatz zur Deckung für die Kosten von Krieg, Religion und andre Gemeindeausgaben. Im Laufe der Zeit usurpierten kriegerische und kirchliche Würdenträger mit dem Gemeineigentum die Leistungen für dasselbe. Die Arbeit der freien Bauern auf ihrem Gemeindeland verwandelte sich in Fronarbeit für die Diebe

existing in point of fact, not in point of law, until Russia, the liberator of the world, made it legal under presence of abolishing serfdom. The code of the *corvée*, which the Russian General Kisseleff proclaimed in 1831, was of course dictated by the Boyards themselves. Thus Russia conquered with one blow the magnates of the Danubian provinces, and the applause of liberal cretins throughout Europe.

des Gemeindelandes. Damit entwickelten sich zugleich Leibeigenschafts-Verhältnisse, jedoch nur tatsächlich, nicht gesetzlich, bis das weltbefreiende Rußland unter dem Vorwand, die Leibeigenschaft abzuschaffen, sie zum Gesetz erhob. Der Kodex der Fronarbeit, den der russische General Kisselew 1831 proklamierte, war natürlich von den Bojaren selbst diktiert. Rußland eroberte so mit einem Schlag die Magnaten der Donaufürstentümer und den Beifallsklatsch der liberalen Kretins von ganz Europa.

↑ Although *corvée* was connected with other appurtenances of serfdom, in Romania it did not arise from serfdom, but from the usurpation of the common lands in a Germanic mode of production. However, under the influence of capitalism it *led to serfdom*, legalized by the *reglement organique*.

↓ Now a detailed description of these laws, which Marx is going to compare with the English Factory Acts.

246:1–247:1 According to the “*Règlement organique*,” as this code of the *corvée* is called, every Wallachian peasant owes to the so-called landlord, besides a mass of detailed payments in kind: (1), 12 days of general labor; (2), one day of field labor; (3), one day of wood carrying. In all, 14 days in the year. With deep insight into Political Economy, however, the working-day is not taken in its ordinary sense, but as the working-day necessary to the production of an average daily product; and that average daily product is determined in so crafty a way that no Cyclops would be done with it in 24 hours.

252:1 Nach dem „*Règlement organique*“, so heißt jener Kodex der Fronarbeit, schuldet jeder walachische Bauer, außer einer Masse detaillierter Naturalabgaben, dem sog. Grundeigentümer 1. zwölf Arbeitstage überhaupt, 2. einen Tag Feldarbeit und 3. einen Tag Holzfuhre. Summa summa-rum 14 Tage im Jahre. Mit tiefer Einsicht in die politische Ökonomie wird jedoch der Arbeitstag nicht in seinem ordinären Sinn genommen, sondern der zur Herstellung eines täglichen Durchschnittsprodukts notwendige Arbeitstag, aber das tägliche Durchschnittsprodukt ist pfiffigerweise so bestimmt, daß kein Zyklope in 24 Stunden damit fertig würde.

Question 850 Why does the *Règlement organique* reveal “deep insight into Political Economy”? And in which respect is it cunning?

↓ The nominally 12 days of *corvée* labor were actually 56 days:

In dry words, the *Règlement* itself declares with true Russian irony that by 12 working-days one must understand the product of the manual labor of 36 days, by 1 day of field labor 3 days, and by 1 day of wood carrying in like manner three times as much. In all, 42 *corvée* days. To this had to be added the so-called *jobagie*, service due to the lord for extraordinary occasions. In proportion

In den dürren Worten echt russischer Ironie erklärt daher das „*Règlement*“ selbst, unter 12 Arbeitstagen sei das Produkt einer Handarbeit von 36 Tagen zu verstehen, unter einem Tag Feldarbeit drei Tage, und unter einem Tag Holzfuhre ebenfalls das Dreifache. Summa: 42 Frontage. Es kommt aber hinzu die sog. *Jobagie*, Dienstleistungen, die dem Grundherrn für außerordentliche Pro-

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to the size of its population, every village has to furnish annually a definite contingent to the jobagie. This additional corvée is estimated at 14 days for each Wallachian peasant. Thus the prescribed corvée amounts to 56 working-days yearly. But the agricultural year in Wallachia numbers in consequence of the severe climate only 210 days, of which 40 for Sundays and holidays, 30 on an average for bad weather, together 70 days, do not count. 140 working-days remain.

duktionsbedürfnisse gebühren. Im Verhältnis zur Größe seiner Bevölkerung hat jedes Dorf jährlich ein bestimmtes Kontingent zur Jobagie zu stellen. Diese zusätzliche Fronarbeit wird für jeden walachischen Bauer auf 14 Tage geschätzt. So beträgt die vorgeschriebene Fronarbeit 56 Arbeitstage jährlich. Das Ackerbaujahr zählt aber in der Walachei wegen des schlechten Klimas nur 210 Tage, wovon 40 für Sonn- und Feiertage, 30 durchschnittlich für Unwetter, zusammen 70 Tage ausfallen. Bleiben 140 Arbeitstage.

↓ The rate of surplus labor to necessary labor is still not very great, therefore there are additional loopholes which allow the labor to be made longer:

The ratio of the corvée to the necessary labor 56/84, or 66 2/3 per cent, gives a much smaller rate of surplus-value than that which regulates the labor of the English agricultural or factory laborer. This is, however, only the legally prescribed corvée. And in a spirit yet more "liberal" than the English Factory Acts, the "Règlement organique" has known how to facilitate its own evasion. After it has made 56 days out of 12, the nominal day's work of each of the 56 corvée days is again so arranged that a portion of it must fall on the ensuing day. In one day, e.g., must be weeded an extent of land, which, for this work, especially in maize plantations, needs twice as much time. The legal day's work for some kinds of agricultural labor is interpretable in such a way that the day begins in May and ends in October. In Moldavia conditions are still harder.

Das Verhältnis der Fronarbeit zur notwendigen Arbeit, 56/84 oder 66 2/3 Prozent, drückt eine viel kleinere Rate des Mehrwerts aus als die, welche die Arbeit des englischen Agrikultur- oder Fabrikarbeiters reguliert. Dies ist jedoch nur die gesetzlich vorgeschriebene Fronarbeit. Und in noch „liberalerem“ Geist als die englische Fabrikgesetzgebung hat das „Règlement organique“ seine eigne Umgehung zu erleichtern gewußt. Nachdem es aus 12 Tagen 54 gemacht, wird das nominelle Tagwerk jedes der 54 Frontage wieder so bestimmt, daß eine Zubeße auf die folgenden Tage fallen muß. In einem Tag z.B. soll eine Landstrecke ausgejätet werden, die zu dieser Operation, namentlich auf den Maispflanzungen, doppelt soviel Zeit erheischt. Das gesetzliche Tagwerk für einzelne Agrikulturarbeiten ist so auslegbar, daß der Tag im Monat Mai anfängt und im Monat Oktober aufhört. Für die Moldau sind die Bestimmungen noch härter.

"The 12 corvée days of the 'Règlement organique' cried a Boyard drunk with victory, amount to 365 days in the year."⁴⁵

„Die zwölf Frontage des Règlement organique,“ rief ein siegtrunkner Bojar, „belaufen sich auf 365 Tage im Jahr!“⁴⁵

⁴⁵ Further details are to be found in E. Regnault's *Histoire politique et sociale des principautés danubiennes*, Paris, 1855 [pp. 304 ff.].

⁴⁵ Weitere Details findet man in É. Regnault, „*Histoire politique et sociale des Principautés Danubiennes*“, Paris 1855, [p. 304 sqq.].

Question 851 *How did the Règlement Organique facilitate its own circumvention? Compare the evasions of the Règlement Organique with those of the factory acts.*

After his description of the state legislation legalizing and extending bonded labor in the

Danubian provinces, Marx makes a comparison with the recent legislation in England, the “Factory Acts” of 1850, limiting the working-day to 10 hours (see 248:1).

247:2 While the *Règlement organique* of the Danubian Principalities was a positive expression of the appetite for surplus labor, which every paragraph legalized, the English Factory Acts are negative expressions of the same appetite.

253:2 War das *Règlement organique* der Donaufürstentümer ein positiver Ausdruck des Heißhungers nach Mehrarbeit, den jeder Paragraph legalisiert, so sind die englischen Factory-Acts negative Ausdrücke desselben Heißhungers.

Question 853 How were the “*Règlement organique*” in the Danubian Provinces and the “Factory Acts” in England, which were passed only 30 years apart in time from each other, both expressions of the greed for surplus-labor? Why did Marx call one a “positive” and one a “negative” expression?

↑ At first glance, the Factory Acts seem to be the opposite of the *Règlement Organique*: they limit the work days instead of extending them. But Marx calls them an expression of the same drive, even if this expression has the opposite sign.

These laws curb capital’s drive to suck as much as it can get out of labor-power, curbs it by forcibly limiting the working-day on the authority of the state, a state which is ruled by capitalist and landlord.

Diese Gesetze zügeln den Drang des Kapitals nach maßloser Aussaugung der Arbeitskraft durch gewaltsame Beschränkung des Arbeitstags von Staats wegen, und zwar von seiten eines Staats, den Kapitalist und Landlord beherrschen.

Why would a state controlled by the capitalists and landowners limit the exploitation of labor-power? ↓ Marx gives two kinds of reasons. On the one hand, the strength of the labor movement. On the other hand, the legislation was *necessary for society* (although it was against the interest of the capitalist class). The comparison with guano shows that the blind drive for profits needs corrective action also in other ways.

Apart from the daily more threatening advance of the working-class movement, the limiting of factory labor was dictated by the same necessity as forced the manuring of English fields with guano. The same blind desire for profit that in the one case exhausted the soil had in the other case seized hold of the vital force of the nation at its roots.

Von einer täglich bedrohlicher anschwellenden Arbeiterbewegung abgesehen, war die Beschränkung der Fabrikarbeit diktiert durch dieselbe Notwendigkeit, welche den Guano auf die englischen Felder ausgoß. Dieselbe blinde Raubgier, die in dem einen Fall die Erde erschöpft, hatte in dem andren die Lebenskraft der Nation an der Wurzel ergriffen.

↑ Marx gives here two very different reasons for the Factory Acts: pressure of the working class, and necessity to preserve the vital force of the nation, which is also addressed in 412:1. The deeper reason, the principle, as Marx says later in 300:1, is the general interest of society not to have the productivity of its workers undermined. This general and necessary social principle is enforced by the struggles of the working class for a limitation of the working-day. “Without the working man’s continuous pressure from without that (legislative) interference would have never taken place” (*Value, Price and Profit*, p. [mecw20]146:2. Here the working class struggles not only for its own class interest, but for the general social interest, which the ruling class, by itself, is unable to pursue.

The capitalists like to claim that they act in the interest of society as a whole, while the working class only has its own particular interest in mind which is an obstacle to general

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social progress. This claim becomes less and less justified. The capitalists don't even act in the long-term interest of their own class any more. Instead, the proletariat begins to be the class whose class interest coincides with the general interest of society. "Apart from higher motives, . . . their own most important interests dictate to the classes that are for the nonce the ruling ones, the removal of all legally removable hindrances to the free development of the working class" (9:40).

The state found itself in the contradictory situation of giving in to the demands of the working class in order to heed the long-term interests of capital. The state's failure to enforce its own legislation shows how contradictory this role is.

The last sentence of this paragraph and footnote 46 give evidence that there was indeed physiological encroachment, not only "moral" encroachment:

Periodical epidemics speak as clearly on this point as the diminishing military standard of height in France and Germany.⁴⁶

⁴⁶ "In general and within certain limits, evidence of the prosperity of organic beings is provided by their exceeding the medium size of their kind. As for man, his bodily height diminishes if his due growth is interfered with, either by physical or by social conditions. In all European countries in which the conscription holds, since its introduction, the medium height of adult men, and generally their fitness for military service, has diminished. Before the revolution (1789), the minimum for the infantry in France was 165 centimetres; in 1818 (law of March 10th), 157; by the law of March 21, 1832, 156 c.m.; on the average in France more than half are rejected on account of deficient height or bodily weakness. The military standard in Saxony was in 1780, 178 c.m. It is now 155. In Prussia it is 157. According to the statement of Dr. Meyer in the Bavarian Gazette, May 9th, 1862, the result of an average of 9 years is, that in Prussia out of 1,000 conscripts 716 were unfit for military service, 317 because of deficiency in height, and 399 because of bodily defects. . . Berlin in 1858 could not provide its contingent of recruits, it was 156 men short.' J. von Liebig: "Die Chemie in ihrer Anwendung auf Agrikultur und Physiologie. 1862," 7th Ed., vol. 1, pp. 117, 118.

Periodische Epidemien sprachen hier ebenso deutlich als das abnehmende Soldatenmaß in Deutschland und Frankreich.⁴⁶

⁴⁶ „Im allgemeinen spricht innerhalb gewisser Grenzen für das Gedeihen organischer Wesen das Überschreiten des Mittelmaßes ihrer Art. Für den Menschen verkleinert sich sein Körpermaß, wenn sein Gedeihen beeinträchtigt ist, sei es durch physische oder soziale Verhältnisse. In allen europäischen Ländern, wo Konskription besteht, hat seit Einführung derselben das mittlere Körpermaß der erwachsenen Männer und im ganzen ihre Tauglichkeit zum Kriegsdienst abgenommen. Vor der Revolution (1789) war das Minimum für den Infanteristen in Frankreich 165 Zentimeter; 1818 (Gesetz vom 10. März) 157, nach dem Gesetz vom 21. März 1832, 156 Zentimeter; durchschnittlich in Frankreich wegen mangelnder Größe und Gebrechen über die Hälfte ausgemustert. Das Militärmaß war in Sachsen 1780: 178 Zentimeter, jetzt 155. In Preußen ist es 157. Nach Angabe in der ‚Bayrischen Zeitung‘ vom 9. Mai 1862 von Dr. Meyer stellt sich nach einem 9jährigen Durchschnitt heraus, daß in Preußen von 1000 Konskribierten 716 untauglich zum Militärdienst: 317 wegen Mindermaß und 399 wegen Gebrechen . . . Berlin konnte 1858 sein Kontingent an Ersatzmannschaft nicht stellen, es fehlten 156 Mann.“ (J. v. Liebig, „Die Chemie in ihrer Anwendung auf Agrikultur und Physiologie,“ 1862. 7. Aufl. Band I, p. 117, 118.)

Question 855 *Would the capitalists have ended up introducing the factory acts themselves if the workers had not fought for them?* 2007SP, 2004fa.

↓ Brief summary of the Factory Acts in force when Marx was writing:

248:1 The Factory Act of 1850 now in force (1867) allows for the average

254:1 Der jetzt (1867) geltende Factory-Act von 1850 erlaubt für den durchschnitt-

working-day 10 hours, i.e., for the first 5 days 12 hours from 6 a.m. to 6 p.m., from which however 1/2 an hour for breakfast and an hour for dinner are subtracted by law, thus leaving 10 1/2 working-hours, and for Saturday 8 hours, from 6 a.m. to 2 p.m., of which 1/2 an hour is subtracted for breakfast. 60 working-hours are left, 10 1/2 for each of the first 5 days, 7 1/2 for the last.⁴⁷ Certain guardians of these laws are appointed, Factory Inspectors, directly under the Home Secretary, whose reports are published half-yearly, by order of Parliament. They give regular and official statistics of the capitalists' greed for surplus-labor.

lichen Wochentag 10 Stunden, nämlich für die ersten 5 Wochentage 12 Stunden, von 6 Uhr morgens bis 6 Uhr abends, wovon aber 1/2 Stunde für Frühstück und eine Stunde für Mittagessen gesetzlich abgehn, also 10 1/2 Arbeitsstunden bleiben, und 8 Stunden für den Samstag, von 6 Uhr morgens bis 2 Uhr nachmittags, wovon 1/2 Stunde für Frühstück abgeht. Bleiben 60 Arbeitsstunden, 10 1/2 für die ersten fünf Wochentage, 7 1/2 für den letzten Wochentag.⁴⁷ Es sind eigne Wächter des Gesetzes bestellt, die dem Ministerium des Innern direkt untergeordneten Fabrikinspektoren, deren Berichte halbjährlich von Parlaments wegen veröffentlicht werden. Sie liefern also eine fortlaufende und offizielle Statistik über den Kapitalistenheißhunger nach Mehrarbeit.

⁴⁷ The history of the Factory Act of 1850 will be found in the course of this chapter.

⁴⁷ Die Geschichte des Fabrikakts von 1850 folgt im Verlauf dieses Kapitels.

The events and developments leading up to these Factory Acts will be discussed later. Right now Marx says, in several different ways, that these Acts were a negative expression of the greed for surplus-labor.

(1) Even after the Acts, are the working hours are still very long, plus the legal norms are exceeded by many firms. The reports of the factory inspectors (instituted by these Acts) became the official documentation of capitalist greed.

248:2–249:2 Let us listen, for a moment, to the Factory Inspectors.⁴⁸

254:2 Hören wir einen Augenblick die Fabrikinspektoren.⁴⁸

“The fraudulent mill-owner begins work a quarter of an hour (sometimes more, sometimes less) before 6 a.m., and leaves off a quarter of an hour (sometimes more, sometimes less) after 6 p.m. He takes 5 minutes from the beginning and from the end of the half hour nominally allowed for breakfast, and 10 minutes at the beginning and end of the hour nominally allowed for dinner. He works for a quarter of an hour (sometimes more, sometimes less) after 2 p.m. on Saturday. Thus his gain is—

„Der betrügerische Fabrikant beginnt die Arbeit eine Viertelstunde, manchmal früher, manchmal später, vor 6 Uhr morgens und schließt sie eine Viertelstunde, manchmal früher, manchmal später, nach 6 Uhr nachmittags. Er nimmt 5 Minuten weg vom Anfang und Ende der nominell für das Frühstück anberaumten halben Stunde, und knappt 10 Minuten ab zu Anfang und Ende der für Mittagessen anberaumten Stunde. Samstag arbeitet er eine Viertelstunde, manchmal mehr, manchmal weniger, nach 2 Uhr nachmittags. So beträgt sein Gewinn:

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Before 6 a.m.	15 minutes	Vor 6 Uhr morgens	15 Minuten
After 6 p.m.	15 minutes	Nach 6 Uhr nachmittags	15 Minuten
At breakfast time	10 minutes	Für Frühstückszeit	10 Minuten
At dinner time	20 minutes	Beim Mittagessen	20 Minuten
	60 minutes		60 Minuten
<i>Sum in 5 days:</i>	300 minutes	<i>Summa in 5 Tagen:</i>	300 Minuten
On Saturdays		An Samstagen	
Before 6 a.m.	15 minutes	Vor 6 Uhr morgens	15 Minuten
At breakfast time	10 minutes	Für Frühstück	10 Minuten
Nach 2 p.m.	15 minutes	Nach 2 Uhr nachmittags	15 Minuten
<i>Total weekly:</i>	340 minutes	<i>Wöchentlicher Gesamtgewinn:</i>	340 Minuten

Or 5 hours and 40 minutes weekly, which multiplied by 50 working weeks in the year (allowing two for holidays and occasional stoppages) is equal to 27 working-days.”⁴⁹

“Five minutes a day’s increased work, multiplied by weeks, are equal to two and a half days of produce in the year.”⁵⁰ “An additional hour a day gained by small instalments before 6 a.m., after 6 p.m., and at the beginning and end of the times nominally fixed for meals, is nearly equivalent to working 13 months in the year.”⁵¹

⁴⁸ I only touch here and there on the period from the beginning of modern industry in England to 1845. For this period I refer the reader to “Die Lage der arbeitenden Klasse in England,” by Friedrich Engels, Leipzig, 1845. How profoundly Engels understood the nature of the capitalist mode of production is shown by the Factory Reports, Reports on Mines, etc., that have appeared since 1845, and how accurately he painted the circumstances in detail is seen on the most superficial comparison of his work with the official reports of the Children’s Employment Commission, published 18 to 20 years later (1863–1867). These deal especially with the branches of industry in which the Factory Acts had not, up to 1862, been introduced, in fact are not yet introduced. Here, then, little or no alteration had been enforced, by authority, in the conditions painted by Engels.

In this favorable review of Engels in footnote 48, Marx distinguishes between the depth of Engels’s understanding, corroborated by the factory reports (which contain interviews of the capitalists themselves), and the accuracy of his detailed knowledge, corroborated by the reports of the Children’s Employment Commission (which was focusing on what actually was done to the children in the factories).

The rest of footnote 48 is directed at Marx’s German readers.

^{48 ctd} I borrow my examples chiefly from the

Oder 5 Stunden 40 Minuten wöchentlich, was mit 50 Arbeitswochen multipliziert, nach Abzug von 2 Wochen für Feiertage oder gelegentliche Unterbrechungen, 27 Arbeitstage gibt.“⁴⁹

„Wird der Arbeitstag täglich 5 Minuten über die Normaldauer verlängert, so gibt das 2 1/2 Produktionstage im Jahr.“⁵⁰ „Eine zusätzliche Stunde täglich, dadurch gewonnen, daß bald hier ein Stückchen Zeit erhascht wird, bald dort ein andres Stückchen, macht aus den 12 Monaten des Jahres 13.“⁵¹

⁴⁸ Auf die Periode vom Beginn der großen Industrie in England bis 1845 gehe ich nur hier und da ein und verweise den Leser darüber auf „Die Lage der arbeitenden Klasse in England“ von Friedrich Engels, Leipzig 1845. Wie tief Engels den Geist der kapitalistischen Produktionsweise begriff, zeigen die Factory Reports, Reports on Mines usw., die seit 1845 erschienen sind, und wie bewundernswürdig er die Zustände im Detail malte, zeigt der oberflächlichste Vergleich seiner Schrift mit den 18 bis 20 Jahre später veröffentlichten offiziellen Reports der Children’s Employment Commission (1863–1867). Diese handeln nämlich von Industriezweigen, worin die Fabrikgesetzgebung bis 1862 noch nicht eingeführt war, zum Teil noch nicht eingeführt ist. Hier wurde also den von Engels geschilderten Zuständen mehr oder minder große Änderung nicht von außen aufgeherrscht.

^{48 ctd} Meine Beispiele entlehne ich hauptsächlich

free-trade period after 1848, that age of paradise, of which the commercial travellers for the great firm of free-trade, blatant as ignorant, tell such fabulous tales to the Germans.—By the way, England figures here in the foreground because she is the classic representative of capitalist production, and she alone has a continuous set of official statistics of the things we are considering.

lich der Freihandelsperiode nach 1848, jener paradisischen Zeit, wovon ebenso großmäulige als wissenschaftlich verwahrloste Freihandels- hausierburschen den Deutschen so fabelhaft viel vorfauchen.—Übrigens figuriert England hier nur im Vordergrund, weil es die kapitalistische Produktion klassisch repräsentiert und allein eine offiziell fortlaufende Statistik der behandelten Gegenstände besitzt.

↑ Marx did not mean to put down England. Other countries did similar things, but they did not document it.

⁴⁹ „Suggestions, etc. by Mr. L. Homer, Inspector of Factories,” in *Factories Regulation Acts*. Ordered by the House of Commons to be printed, 9th August, 1859, pp. 4, 5.

⁴⁹ „Suggestions etc. by Mr. L. Horner, Inspector of Factories“, im „*Factories Regulation Act*. Ordered by the House of Commons to be printed 9. Aug. 1859“, p. 4, 5.

⁵⁰ *Reports of the Inspector of Factories for the half year. October, 1856*, p. 35.

⁵⁰ „*Reports of the Insp. of Fact. for the half year, Oct. 1856*“, p. 35.

⁵¹ *Reports, etc.*, 30th April, 1858, p. 9.

⁵¹ „*Report etc. 30th April 1858*“, p. 9.

(2) Crises, during which production is interrupted, do not affect the drive to lengthen the working-day:

249:3–6 Crises during which production is interrupted and the factories work “short time,” i.e., for only a part of the week, naturally do not affect the tendency to extend the working-day.

255:4 Krisen, worin die Produktion unterbrochen und nur „kurze Zeit“, nur während einiger Tage in der Woche, gearbeitet wird, ändern natürlich nichts an dem Trieb nach Verlängerung des Arbeitstags.

↑ This is a contradiction. Business conditions force the capitalists to work shorter hours, but their drive is to extend the hours as much as possible. ↓ It is revealing how they deal with this contradiction: Even if the employees are working short hours, they are still expected to work during breaks and before and after their paid time.

The less business there is, the more profit has to be made on the business done. The less time spent in work, the more of that time has to be turned into surplus labor-time. Thus the Factory Inspector’s report on the period of the crisis from 1857 to 1858:

Je weniger Geschäfte gemacht werden, desto größer soll der Gewinn auf das gemachte Geschäft sein. Je weniger Zeit gearbeitet werden kann, desto mehr Surplusarbeitszeit soll gearbeitet werden. So berichten die Fabrikinspektoren über die Periode der Krise von 1857 bis 1858:

“It may seem inconsistent that there should be any overworking at a time when trade is so bad; but that very badness leads to the transgression by unscrupulous men, they get the extra profit of it . . . In the last half year, says Leonard Homer, 122 mills in my district have been given up; 143 were found standing,” yet, over-work is continued beyond the legal hours.⁵² “For a great part of the time,” says Mr. Howell, “owing to the depression of trade, many factories were altogether closed, and a still greater number were working short time. I continue, however, to receive about

„Man mag es für eine Inkonsequenz halten, daß irgendwelche Überarbeit zu einer Zeit stattfindet, wo der Handel so schlecht geht, aber sein schlechter Zustand spornet rücksichtslose Leute zu Überschreitungen; sie sichern sich so einen Extraprofit . . .“ „Zur selben Zeit“, sagt Leonard Horner, „wo 122 Fabriken in meinem Distrikt ganz aufgegeben sind, 143 stillstehn und alle andren kurze Zeit arbeiten, wird die Überarbeit über die gesetzlich bestimmte Zeit fortgesetzt.“⁵² „Obgleich“, sagt Herr Howell, „in den meisten Fabriken des schlechten Geschäftsstands wegen

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the usual number of complaints that half, or three-quarters of an hour in the day, are snatched from the workers by encroaching upon the times professedly allowed for rest and refreshment.”⁵³

⁵² Reports, etc., l.c., p. 10.

⁵³ Reports etc., l.c., p. 25.

249:7–250:2 The same phenomenon was reproduced on a smaller scale during the frightful cotton-crises from 1861 to 1865.⁵⁴

“It is sometimes advanced by way of excuse, when persons are found at work in a factory, either at a meal hour, or at some illegal time, that they will not leave the mill at the appointed hour, and that compulsion is necessary to force them to cease work [cleaning their machinery, etc.], especially on Saturday afternoons. But, if the hands remain in a factory after the machinery has ceased to revolve ... they would not have been so employed if sufficient time had been set apart specially for cleaning, etc., either before 6 a.m. [*sic.*] or before 2 p.m. on Saturday afternoons.”⁵⁵

“The profit to be gained by it (over-working in violation of the Act) appears to be, to many, a greater temptation than they can resist; they calculate upon the chance of not being found out; and when they see the small amount of penalty and costs, which those who have been convicted have had to pay, they find that if they should be detected there will still be a considerable balance of gain ...⁵⁶ In cases where the additional time is gained by a multiplication of small thefts in the course of the day, there are insuperable difficulties to the inspectors making out a case.”⁵⁷

These “small thefts” of capital from the laborer’s meal and recreation time, the factory inspectors also designate as “petty pilferings of minutes,”⁵⁸ “snatching a few minutes,”⁵⁹ or, as the laborers technically called them, “nibbling and cribbling at meal-times.”⁶⁰

⁵⁴ Reports etc., for the half year ending 30th April, 1861. See Appendix No. 2; Reports, etc.,

nur halbe Zeit gearbeitet wird, erhalte ich nach wie vor dieselbe Anzahl von Klagen, daß eine halbe Stunde oder 3/4 Stunden täglich den Arbeitern weggeschnappt (snatched) werden durch Eingriffe in die ihnen gesetzlich gesicherten Fristen für Mahlzeit und Erholung.⁵³

⁵² „Reports etc.“, l.c. p. 10.

⁵³ „Reports etc.“, l.c. p. 25.

256:1 Dasselbe Phänomen wiederholt sich auf kleinerer Stufenleiter während der furchtbaren Baumwollkrise von 1861 bis 1865.⁵⁴

„Es wird zuweilen vorgeschützt, wenn wir Arbeiter während der Speisestunden oder sonst zu ungesetzlicher Zeit am Werk ertappen, daß sie die Fabrik durchaus nicht verlassen wollen und daß es des Zwangs bedarf, um ihre Arbeit“ (Reinigen der Maschinen usw.) „zu unterbrechen, namentlich Samstag nachmittags. Aber wenn die ‚Hände‘ nach Stillsetzung der Maschinerie in der Fabrik bleiben, geschieht es nur, weil ihnen zwischen 6 Uhr morgens und 6 Uhr abends, in den gesetzlich bestimmten Arbeitsstunden, keine Frist zur Verrichtung solcher Geschäfte gestattet worden ist.“⁵⁵

„Der durch Überarbeit über die gesetzliche Zeit zu machende Extraprofit scheint für viele Fabrikanten eine zu große Versuchung, um ihr widerstehn zu können. Sie rechnen auf die Chance, nicht aufgefunden zu werden, und berechnen, daß selbst im Fall der Entdeckung die Geringfügigkeit der Geldstrafen und Gerichtskosten ihnen immer noch eine Gewinnbilanz sichert.“⁵⁶ Wo die zusätzliche Zeit durch Multiplikation kleiner Diebstähle (a multiplication of small thefts) im Laufe des Tages gewonnen wird, stehn den Inspektoren fast unüberwindliche Schwierigkeiten der Beweisführung im Weg.“⁵⁷

Diese „kleinen Diebstähle“ des Kapitals an der Mahlzeit und Erholungszeit der Arbeiter bezeichnen die Fabrikinspektoren auch als „petty pilferings of minutes“, Mauseereien von Minuten,⁵⁸ „snatching a few minutes“, Wegschnappen von Minuten,⁵⁹ oder wie die Arbeiter es technisch heißen, „nibbling and cribbling at meal times“.⁶⁰

⁵⁴ „Reports etc. for the half year ending 30th April 1861.“ Sieh Appendix Nr. 2; „Reports etc.

31st October, 1862, pp. 7, 52, 53. The violations of the Acts became more numerous during the last half year 1863. Cf. Reports, etc., ending 31st October, 1863, p. 7.

⁵⁵ Reports, etc., October 31st, 1860, p. 23. With what fanaticism, according to the evidence of manufacturers given in courts of law, their hands set themselves against every interruption in factory labor, the following curious circumstance shows. In the beginning of June, 1836, information reached the magistrates of Dewsbury (Yorkshire) that the owners of 8 large mills in the neighbourhood of Batley had violated the Factory Acts. Some of these gentlemen were accused of having kept at work 5 boys between 12 and 15 years of age, from 6 a.m. on Friday to 4 p.m. on the following Saturday, not allowing them any respite except for meals and one hour for sleep at midnight. And these children had to do this ceaseless labor of 30 hours in the "shoddyhole," as the hole is called, in which the woollen rags are pulled in pieces, and where a dense atmosphere of dust, shreds, etc., forces even the adult workman to cover his mouth continually with handkerchiefs for the protection of his lungs! The accused gentlemen affirm in lieu of taking an oath—as quakers they were too scrupulously religious to take an oath—that they had, in their great compassion for the unhappy children, allowed them four hours for sleep, but the obstinate children absolutely would not go to bed. The quaker gentlemen were fined £20. Dryden anticipated these gentry:

^{55 ctd} "Fox full fraught in seeming sanctity,
That feared an oath, but like the devil would lie,
That look'd like Lent, and had the holy leer,
And durst not sin! before he said his prayer!"

⁵⁶ Rep., 31st Oct., 1856, p. 34.

⁵⁷ l.c., p. 35.

⁵⁸ l.c., p. 48.

⁵⁹ l.c., p. 48.

⁶⁰ l.c., p. 48.

↓ Although Marx says that in general, capitalist exploitation is "hidden," in this situation capitalism reveals itself as being based on the expropriation of labor.

250:3–251:0 It is evident that in this atmosphere the formation of surplus-value by

31st Octob. 1862", p. 7, 52, 53. Die Überschreitungen werden wieder zahlreicher mit dem letzten Halbjahr 1863. Vgl. Reports etc. ending 31st Oct. 1863", p. 7.

⁵⁵ „Reports etc. 31st Oct. 1864, p. 23.“ Mit welchem Fanatismus, nach gerichtlichen Aussagen der Fabrikanten, ihre Fabrikhände sich jeder Unterbrechung der Fabrikarbeit widersetzen, zeige folgendes Kuriosum: Anfang Juni 1836 gingen den Magistrates von Dewsbury (Yorkshire) Denunziationen zu, wonach die Eigner von 8 großen Fabriken in der Nähe von Batley den Fabrikakt verletzt hätten. Ein Teil dieser Herren war angeklagt, 5 Knaben zwischen 12 und 15 Jahren von 6 Uhr morgens des Freitags bis 4 Uhr nachmittags des folgenden Samstags abgearbeitet zu haben, ohne irgendeine Erholung zu gestatten, außer für Mahlzeiten und eine Stunde Schlaf um Mitternacht. Und diese Kinder hatten die rastlose, 30stündige Arbeit zu verrichten in dem „shoddyhole“, wie die Höhle heißt, worin Wollenlumpen aufgerissen werden und wo ein Luftmeer von Staub, Abfällen usw. selbst den erwachsenen Arbeiter zwingt, den Mund beständig mit Schnupftüchern zu verbinden, zum Schutz seiner Lunge! Die Herren Angeklagten versicherten an Eides Statt—als Quäker waren sie zu skrupulös religiöse Männer, einen Eid zu leisten—, sie hätten in ihrer großen Barmherzigkeit den elenden Kindern 4 Stunden Schlaf erlaubt, aber die Starrköpfe von Kindern wollten durchaus nicht zu Bett gehn! Die Herrn Quäker wurden zu 20 Pfd.St. Geldbuße verurteilt. Dryden ahnte diese Quäker:

^{55 ctd} „Ein Fuchs voller Scheinheiligkeit,
der wie der Teufel lügt, doch fürchtet sich vor'm Eid,
der wie ein Büsser ausschaut, doch seitwärts gier'ge Blicke wirft,
doch nicht zu sünd'gen wagt, bevor er sein Gebet gesagt!“

⁵⁶ „Rep. etc. 31st Oct. 1856“, p. 34.

⁵⁷ l.c. p. 35.

⁵⁸ l.c. p. 48.

⁵⁹ l.c.

⁶⁰ l.c.

257:2 Man sieht, in dieser Atmosphäre ist die Bildung des Mehrwerts durch die Mehr-

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surplus-labor is no secret. “If you allow me”, said a highly respectable master to me, ‘to work only ten minutes in the day overtime, you put one thousand a year in my pocket.’”⁶¹ “Moments are the elements of profit.”⁶²

⁶¹ l.c., p. 48.

⁶² Report of the Insp. etc., 30th April 1860, p. 56.

251:1 Nothing is from this point of view more characteristic than the designation of the workers who work full time as “full-timers,” and the children under 13 who are only allowed to work 6 hours as “half-timers.” The worker is here nothing more than personified labor-time. All individual distinctions are merged in those of “full-timers” and “half-timers.”⁶³

⁶³ This is the official expression both in the factories and in the reports.

arbeit kein Geheimnis. „Wenn Sie mir erlauben“, sagte mir ein sehr respektabler Fabrikherr, „täglich nur 10 Minuten Überzeit arbeiten zu lassen, stecken Sie jährlich 1000 Pfd.St. in meine Tasche.“⁶¹ „Zeitatom sind die Elemente des Gewinns.“⁶²

⁶¹ l.c. p. 48.

⁶² „Moments are the elements of profit.“ (Rep. of the Insp. etc. 30th April 1860 p. 56.)

257:4 Nichts ist in dieser Hinsicht charakteristischer als die Bezeichnung der Arbeiter, die volle Zeit arbeiten, durch „full times“ und die der Kinder unter 13 Jahren, die nur 6 Stunden arbeiten dürfen, als „half times“⁶³. Der Arbeiter ist hier nichts mehr als personifizierte Arbeitszeit. Alle individuellen Unterschiede lösen sich auf in die von „Vollzeitle“ und „Halbzeitle“.

⁶³ Der Ausdruck hat offizielles Bürgerrecht, wie in der Fabrik, so in den Fabrikberichten.

10.3. Branches of English Industry With No Legal Bounds to Exploitation

The factory acts discussed so far were the “negative expression” 247:2 of capital’s were-wolf hunger for surplus-value. The present section discusses situations in which this hunger freely expressed itself because it had not yet received such a negative reaction. Marx concentrates on the time after 1845, see footnote 48 to paragraph 248:2–249:2, where the working-day was regulated in some but not in other industries. He shows that the same thirst for surplus-labor that is apparent in the regulated industries, can also be found in the unregulated ones. This proves that this thirst is not a reaction to regulation, and makes it clear to the reader that regulation is necessary everywhere, see 302:2/o. Besides excessive length of the working-day, also other transgressions are registered: child labor, unsafe or unhealthy working conditions, product adulteration.

251:2 We have hitherto considered the tendency to the extension of the working-day, the were-wolf’s hunger for surplus-labor, in a department where boundless excesses, not surpassed, says an English bourgeois economist, by the cruelties of the Spaniards to the American red-skins,⁶⁴ caused capital at last to be bound by the chains of legal regulations.

⁶⁴ “The cupidity of mill-owners whose cruelties in the pursuit of gain have hardly been exceeded by those perpetrated by the Spaniards on

258:1 Den Trieb nach Verlängerung des Arbeitstags, den Werwolfsheißhunger für Mehrarbeit, beobachteten wir bisher auf einem Gebiet, wo maßlose Ausschreitungen, nicht übergipfelt, so sagt ein bürgerlicher englischer Ökonom, von den Grausamkeiten der Spanier gegen die Rothäute Amerikas,⁶⁴ das Kapital endlich an die Kette gesetzlicher Regulation gelegt haben.

⁶⁴ „Die Habgier der Fabrikbesitzer, deren Grausamkeiten bei der Jagd nach Gewinn kaum von denjenigen übertroffen wurden, die die Spa-

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the conquest of America in the pursuit of gold.” John Wade, [Wad35, p. 114]. The theoretical part of this book, a kind of hand-book of Political Economy, is, considering the time of its publication, original in some parts, *e.g.*, on commercial crises. The historical part is, to a great extent, a shameless plagiarism of Sir F. M. Eden’s “The State of the Poor,” London, 1797.

nier bei der Eroberung Amerikas, bei der Jagd nach dem Golde verübten.“ John Wade [Wad35, p. 114] Der theoretische Teil dieses Buchs, eine Art Grundriß der politischen Ökonomie, enthält für seine Zeit einiges Originelle, z.B. über Handelskrisen. Der historische Teil leidet an schamlosem Plagiarismus aus Sir M. Edens, „The State of the Poor“, London 1797.

It is the boundless excesses of the werewolf’s hunger for surplus labor, not this hunger itself, that triggered the legal regulation. Now Marx looks at industries which were exempt from these laws, in which these excesses continued unabated. Marx brings examples from the production of laces in 251:3/o, pottery in 252:1, matches in 254:3–4, wallpaper in 254:4, bread in 256:1, and at the end, in 259:5/o, various other consumer products where excessive hours prevailed.

Now, let us cast a glance at certain branches of production in which the exploitation of labor is either free from fetters to this day, or was so yesterday.

Werfen wir jetzt den Blick auf einige Produktionszweige, wo die Ausausung der Arbeitskraft entweder noch heute fesselfrei ist oder es gestern noch war.

Laces: Discussion in a county magistrate about child labor in laces, 18 hours and more per day, amounts to slavery and manslaughter. Personal outrage of officials and priest, capitalists protest against the discussion.

251:3/o “Mr. Broughton Charlton, county magistrate, declared, as chairman of a meeting held at the Assembly Rooms, Nottingham, on the 14th January, 1860, that there was an amount of privation and suffering among that portion of the population connected with the lace trade, unknown in other parts of the kingdom, indeed, in the civilised world ... Children of nine or ten years are dragged from their squalid beds at two, three, or four o’clock in the morning and compelled to work for a bare subsistence until ten, eleven, or twelve at night, their limbs wearing away, their frames dwindling, their faces whitening, and their humanity absolutely sinking into a stone-like torpor, utterly horrible to contemplate ... We are not surprised that Mr. Mallett, or any other manufacturer, should stand forward and protest against discussion ... The system, as the Rev. Montagu Valpy describes it, is one of unmitigated slavery, socially, physically, morally, and spiritually ... What can be thought of a town which holds a public meeting to petition that the period of labor for men shall be diminished to eighteen hours a day? ... We declaim against the Virginian and Carolinian cotton-planters. Is their black-market, their lash, and their barter of human flesh more detestable than this slow sacrifice of humanity which takes place in order that veils and

258:2/o „Herr Broughton, ein County Magistrate, erklärte als Präsident eines Meetings, abgehalten in der Stadthalle von Nottingham, am 14. Januar 1860, daß in dem mit der Spitzenfabrikation beschäftigten Teile der städtischen Bevölkerung ein der übrigen zivilisierten Welt unbekannter Grad von Leid und Entbehrung vorherrscht ... Um 2, 3, 4 Uhr des Morgens werden Kinder von 9 bis 10 Jahren ihren schmutzigen Betten entrissen und gezwungen, für die nackte Subsistenz bis 10, 11, 12 Uhr nachts zu arbeiten, während ihre Glieder wegschwinden, ihre Gestalt zusammenschrumpft, ihre Gesichtszüge abstumpfen und ihr menschliches Wesen ganz und gar in einem steinähnlichen Torpor erstant, dessen bloßer Anblick schauderhaft ist. Wir sind nicht überrascht, daß Herr Mallett und andere Fabrikanten auftraten, um Protest gegen jede Diskussion einzulegen ... Das System, wie der Rev. Montagu Valpy es beschrieb, ist ein System unbeschränkter Sklaverei. Sklaverei in sozialer, physischer, moralischer und intellektueller Beziehung ... Was soll man denken von einer Stadt, die ein öffentliches Meeting abhält, um zu petitionieren, daß die Arbeitszeit für Männer täglich auf 18 Stunden beschränkt werden solle! ... Wir deklamieren gegen die virginischen und karolinischen Pflanzer. Ist jedoch ihr Negermarkt,

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collars may be fabricated for the benefit of capitalists?"⁶⁵

⁶⁵ *Daily Telegraph*, 17th January, 1860.

mit allen Schrecken der Peitsche und dem Schacher in Menschenfleisch, abscheulicher als diese langsame Menschenabschlachtung, die vor sich geht, damit Schleier und Kragen zum Vorteil von Kapitalisten fabriziert werden?"⁶⁵

⁶⁵ London „Daily Telegraph“ vom 17. Januar 1860.

Potteries: One and the same pottery was subject to 3 parliamentary investigations within 22 years. Quotes from these about the child labor there (leaving aside the conditions for adults). Long and irregular hours, whole nights of overtime without extra pay. Bad health of population is very obvious.

252:1 The potteries of Staffordshire have, during the last 22 years, been the subject of three parliamentary inquiries. The result is embodied in Mr. Scriven's Report of 1841 to the "Children's Employment Commissioners," in the report of Dr. Greenhow of 1860 published by order of the medical officer of the Privy Council (Public Health, 3rd Report, 112–113), lastly, in the report of Mr. Longe of 1862 in the "First Report of the Children's Employment Commission, of the 13th June, 1863." For my purpose it is enough to take, from the reports of 1860 and 1863, some depositions of the exploited children themselves. From the children we may form an opinion as to the adults, especially the girls and women, and that in a branch of industry by the side of which cotton-spinning appears an agreeable and healthful occupation.⁶⁶

⁶⁶ Cf. F. Engels "Lage, etc." pp. 249–51.

Testimony of children working in the potteries:

252:2–5 William Wood, 9 years old, was 7 years and 10 months when he began to work. He "ran moulds" (carried ready-moulded articles into the drying-room, afterwards bringing back the empty mould) from the beginning. He came to work every day in the week at 6 a.m., and left off about 9 p.m.

"I work till 9 o'clock at night six days in the week. I have done so seven or eight weeks."

259:1 Die Töpferei (Pottery) von Staffordshire hat während der letzten 22 Jahre den Gegenstand dreier parlamentarischen Untersuchungen gebildet. Die Resultate sind niedergelegt im Bericht des Herrn Scriven von 1841 an die „Children's Employment Commissioners“, im Bericht des Dr. Greenhow von 1860, veröffentlicht auf Befehl des ärztlichen Beamten des Privy Council („Public Health, 3rd Report“, 1, 102–113), endlich im Bericht des Herrn Longe von 1863, in „First Report of the Children's Employment Commission“ vom 13. Juni 1863. Für meine Aufgabe genügt es, den Berichten von 1860 und 1863 einige Zeugnisaussagen der exploitierten Kinder selbst zu entlehnen. Von den Kindern mag man auf die Erwachsenen schließen, namentlich Mädchen und Frauen, und zwar in einem Industriezweig, woneben Baumwollspinnerei u. dgl. als ein sehr angenehmes und gesundes Geschäft erscheint.⁶⁶

⁶⁶ Vgl. Engels, „Lage etc.“, p. [mecw]

259:2–5 Wilhelm Wood, neunjährig, "war 7 Jahre 10 Monate alt, als er zu arbeiten begann". Er „ran moulds“ (trug die fertig geformte Ware in die Trockenstube, um nachher die leere Form zurückzubringen) von Anfang an. Er kommt jeden Tag in der Woche um 6 Uhr morgens und hört auf ungefähr 9 Uhr abends.

„Ich arbeite bis 9 Uhr abends jeden Tag in der Woche. So z.B. während der letzten 7–8 Wochen.“

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Fifteen hours of labor for a child 7 years old!
J. Murray, 12 years of age, says:

“I turn jigger, and run moulds. I come at 6. Sometimes I come at 4. I worked all night last night, till 6 o’clock this morning. I have not been in bed since the night before last. There were eight or nine other boys working last night. All but one have come this morning. I get 3 shillings and sixpence. I do not get any more for working at night. I worked two nights last week.”

Also fünfzehnständige Arbeit für ein siebenjähriges Kind! J. Murray, ein zwölfjähriger Knabe, sagt aus:

„I run moulds and turn jigger (drehe das Rad). Ich komme um 6 Uhr, manchmal um 4 Uhr morgens. Ich habe während der ganzen letzten Nacht bis diesen Morgen 6 Uhr gearbeitet. Ich war nicht im Bett seit der letzten Nacht. Außer mir arbeiteten 8 oder 9 andre Knaben die letzte Nacht durch. Alle außer einem sind diesen Morgen wieder gekommen. Ich bekomme wöchentlich 3 sh. 6 d.“ (1 Taler 5 Groschen). Ich bekomme nicht mehr, wenn ich die ganze Nacht durcharbeite. Ich habe in der letzten Woche zwei Nächte durchgearbeitet.“

Fernyhough, a boy of ten:

“I have not always an hour (for dinner). I have only half an hour sometimes; on Thursday, Friday, and Saturday.⁶⁷

Fernyhough, ein zehnjähriger Knabe:

„Ich habe nicht immer eine ganze Stunde für das Mittagessen; oft nur eine halbe Stunde; jeden Donnerstag, Freitag und Samstag.“⁶⁷

⁶⁷ Children’s Employment Commission. First report., etc., 1863. Evidence. pp. 16, 19, 18.

⁶⁷ „Children’s Employment Commission, First Report etc. 1863“, Appendix, p. 16, 19, 18.

Testimony about the general state of health of the population:

253:1–5 Dr. Greenhow states that the average duration of life in the pottery districts of Stoke-on-Trent and Wolstanton is extraordinarily short. Although in the district of Stoke, only 36.6% and in Wolstanton only 30.4% of the adult male population above 20 are employed in the potteries, among the men of that age in the first district more than half, in the second, nearly 2/5 of the whole deaths are the result of pulmonary diseases among the potters. Dr. Boothroyd, a medical practitioner at Hanley, says:

“Each successive generation of potters is more dwarfed and less robust than the preceding one.”

260:1–5 Dr. Greenhow erklärt die Lebenszeit in den Töpferdistrikten von Stokeupon-Trent und Wolstanton für außerordentlich kurz. Obgleich im Distrikt Stoke nur 36,6% und in Wolstanton nur 30,4% der männlichen Bevölkerung über 20 Jahre in den Töpfereien beschäftigt sind, fällt unter Männern dieser Kategorie im ersten Distrikt mehr als die Hälfte, im zweiten ungefähr 2/5 der Todesfälle infolge von Brustkrankheiten auf die Töpfer. Dr. Boothroyd, praktischer Arzt zu Hanley, sagt aus:

„Jede sukzessive Generation der Töpfer ist zwerghafter und schwächer als die vorhergehende.“

In like manner another doctor, Mr. M’Bean:

“Since he began to practice among the potters 25 years ago, he had observed a marked degeneration especially shown in diminution of stature and breadth.”

Ebenso ein anderer Arzt, Herr McBean:

„Seit ich vor 25 Jahren meine Praxis unter den Töpfern begann, hat sich die auffallende Entartung dieser Klasse fortschreitend in Abnahme von Gestalt und Gewicht gezeigt.“

These statements are taken from the report of Dr. Greenhow in 1860.⁶⁸

Diese Aussagen sind dem Bericht des Dr. Greenhow von 1860 entnommen.⁶⁸

⁶⁸ Public Health, 3rd report, etc., pp. 102, 104, 105.

⁶⁸ „Public Health, 3rd Report etc.“, p. 103, 105.

253:6–7 From the report of the Commissioners in 1863 the following: Dr. J.

260:6–7 Aus dem Bericht der Kommissäre von 1863 folgendes: Dr. J. T. Arled-

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T. Arledge, senior physician of the North Staffordshire Infirmary, says:

“The potters as a class, both men and women, represent a degenerated population, both physically and morally. They are, as a rule, stunted in growth, ill-shaped, and frequently ill-formed in the chest; they become prematurely old, and are certainly short-lived; they are phlegmatic and bloodless, and exhibit their debility of constitution by obstinate attacks of dyspepsia, and disorders of the liver and kidneys, and by rheumatism. But of all diseases they are especially prone to chest-disease, to pneumonia, phthisis, bronchitis, and asthma. One form would appear peculiar to them, and is known as potter’s asthma, or potter’s consumption. Scrofula attacking the glands, or bones, or other parts of the body, is a disease of two-thirds or more of the potters . . . That the ‘degenerescence’ of the population of this district is not even greater than it is, is due to the constant recruiting from the adjacent country, and intermarriages with more healthy races.”^{68a}

^{68a} Child. Empl. Comm. I. Report, p. 24.

253:8–254:2 Mr. Charles Parsons, late house surgeon of the same institution, writes in a letter to Commissioner Longe, amongst other things:

↓ This testimony speaks not only of the avarice of the employers but also the parents:

“I can only speak from personal observation and not from statistical data, but I do not hesitate to assert that my indignation has been aroused again and again at the sight of poor children whose health has been sacrificed to gratify the avarice of either parents or employers.”

He enumerates the causes of the diseases of the potters, and sums them up in the phrase, “long hours.” The report of the Commission trusts that

“a manufacture which has assumed so prominent a place in the whole world, will not long be subject to the remark that its great success is accompanied with the physical deterioration, widespread bodily suffering, and early death of the workpeople . . . by whose labor and skill such great results have been achieved.”⁶⁹

ge, Oberarzt des North Staffordshire Krankenhauses, sagt:

„Als eine Klasse repräsentieren die Töpfer, Männer und Frauen . . ., eine entartete Bevölkerung, physisch und moralisch. Sie sind in der Regel verzerrt, schlecht gebaut, und oft an der Brust verwachsen. Sie altern vorzeitig und sind kurzlebig; phlegmatisch und blutlos, verraten sie die Schwäche ihrer Konstitution durch hartnäckige Anfälle von Dyspepsie, Leber und Nierenstörungen und Rheumatismus. Vor allem aber sind sie Brustkrankheiten unterworfen, der Pneumonie, Phthisis, Bronchitis und dem Asthma. Eine Form des letzteren ist ihnen eigentümlich und bekannt unter dem Namen des Töpfer-Asthma oder der Töpfer-Schwindsucht. Skrophulose, die Mandeln, Knochen oder andre Körperteile angreift, ist eine Krankheit von mehr als zwei Dritteln der Töpfer. Daß die Entartung (degenerescence) der Bevölkerung dieses Distrikts nicht noch viel größer ist, verdankt sie ausschließlich der Rekrutierung aus den umliegenden Landdistrikten und den Zwischenheiraten mit gesunden Racen.“

260:8–261:3 Herr Charles Parsons, vor kurzem noch House Surgeon derselben Krankenanstalt, schreibt in einem Briefe an den Kommissär Longe u.a.:

„Ich kann nur aus persönlicher Beobachtung, nicht statistisch sprechen, aber ich stehe nicht an zu versichern, daß meine Empörung wieder und wieder aufkochte bei dem Anblick dieser armen Kinder, deren Gesundheit geopfert wurde, um der Habgier ihrer Eltern und Arbeitgeber zu frönen.“

Er zählt die Ursachen der Töpferkrankheiten auf und schließt sie kulminierend ab mit “long hours” („langen Arbeitsstunden“). Der Kommissionsbericht hofft, daß

„eine Manufaktur von so hervorragender Stellung in den Augen der Welt nicht lange mehr den Makel tragen wird, daß ihr großer Erfolg begleitet ist von physischer Entartung, vielverzweigten körperlichen Leiden und frühem Tode der Arbeiterbevölkerung, durch deren Arbeit und Geschick so große Resultate erzielt worden sind.“⁶⁹

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⁶⁹ Children's Employment Commission, p. 22, and xi.

And all that holds of the potteries in England is true of those in Scotland.⁷⁰

⁷⁰ l.c., p. xlvii.

Matches: Because of phosphorus extremely unhealthy conditions, long and irregular hours, meals for the most part taken in the phosphorus infested workrooms, lockjaw disease peculiar to matchmakers, half of the workers children under thirteen.

254:3–4 The manufacture of lucifer matches dates from 1833, from the discovery of the method of applying phosphorus to the match itself. Since 1845 this manufacture has rapidly developed in England, and has extended especially amongst the thickly populated parts of London as well as in Manchester, Birmingham, Liverpool, Bristol, Norwich, Newcastle and Glasgow. With it has spread the form of lockjaw, which a Vienna physician in 1845 discovered to be a disease peculiar to lucifer-matchmakers. Half the workers are children under thirteen, and young persons under eighteen.

Now some indirect reference to the custom by the working class to deliver their children as workers into the factories: Only the most miserable part of the working class delivers its children for the potteries.

The manufacture is on account of its unhealthiness and unpleasantness in such bad odour that only the most miserable part of the laboring class, half-starved widows and so forth, deliver up their children to it, "the ragged, half-starved, neglected, and untaught children."⁷¹ Of the witnesses that Commissioner White examined (1863), 270 were under 18, 50 under 10, 10 only 8, and 5 only 6 years old. A range of the working-day from 12 to 14 or 15 hours, night-labor, irregular meal-times, meals for the most part taken in the very workrooms that are pestilent with phosphorus. Dante would have found the worst horrors of his Inferno surpassed in this manufacture.

⁷¹ l.c., p. liv.

Paper hangings (wallpaper): Machinery operated by children, has to run continuously without meal breaks (apparently as a pretext it was claimed that paper and ink would be wasted). Season mainly in winter, therefore extremely long hours with overtime pay in winter, but overtime also in summer. Workers have to quit sick because of overwork.

254:4 In the manufacture of paper-hang-

⁶⁹ „Children's Employ. Commission, 1863“ p. 24, 22 u. XI.

Was von den Töpfereien in England, gilt von denen in Schottland.⁷⁰

⁷⁰ l.c. p. XLVII.

261:4 Die Manufaktur von Zündhölzern datiert von 1833, von der Erfindung, den Phosphor auf die Zündrute selbst anzubringen. Seit 1845 hat sie sich rasch in England entwickelt und von den dicht bevölkerten Teilen Londons namentlich auch nach Manchester, Birmingham, Liverpool, Bristol, Norwich, Newcastle, Glasgow verbreitet, mit ihr die Mundsperr, die ein Wiener Arzt schon 1845 als eigentümliche Krankheit der Zündholzmacher entdeckte. Die Hälfte der Arbeiter sind Kinder unter 13 und junge Personen unter 18 Jahren.

Die Manufaktur ist wegen ihrer Ungesundheit und Widerwärtigkeit so verrufen, daß nur der verkommenste Teil der Arbeiterklasse, halbverhungerte Witwen usw., Kinder für sie hergibt, "zerlumppte, halb verhungerte, ganz verwahrloste und unerzogene Kinder".⁷¹ Von den Zeugen, die Kommissär White (1863) verhörte, waren 270 unter 18 Jahren, 40 unter 10 Jahren, 10 nur 8 und 5 nur 6 Jahre alt. Wechsel des Arbeitstags von 12 auf 14 und 15 Stunden, Nacharbeit, unregelmäßige Mahlzeiten, meist in den Arbeitsräumen selbst, die vom Phosphor verpestet sind. Dante wird in dieser Manufaktur seine grausamsten Höllenphantasien übertroffen finden.

⁷¹ l.c. p. LIV.

261:5 In der Tapetenfabrik werden die

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ings the coarser sorts are printed by machine; the finer by hand (block-printing). The most active business months are from the beginning of October to the end of April. During this time the work goes on fast and furious without intermission from 6 a.m. to 10 p.m. or further into the night.

254:5–255:0 J. Leach deposes:

“Last winter six out of nineteen girls were away from ill-health at one time from over-work. I have to bawl at them to keep them awake.” W. Duffy: “I have seen when the children could none of them keep their eyes open for the work; indeed, none of us could.” J. Lightbourne: “Am 13 We worked last winter till 9 (evening), and the winter before till 10. I used to cry with sore feet every night last winter.” G. Apsden: “That boy of mine when he was 7 years old I used to carry him on my back to and fro through the snow, and he used to have 16 hours a day ... I have often knelt down to feed him as he stood by the machine, for he could not leave it or stop.” Smith, the managing partner of a Manchester factory: “We (he means his “hands” who work for “us”) work on with no stoppage for meals, so that day’s work of 10 1/2 hours is finished by 4.30 p.m., and all after that is over-time.”⁷² (Does this Mr. Smith take no meals himself during 10 1/2 hours?) “We (this same Smith) seldom leave off working before 6 p.m. (he means leave off the consumption of “our” labor-power machines), so that we (iterum Crispinus) are really working over-time the whole year round. For all these, children and adults alike (152 children and young persons and 140 adults), the average work for the last 18 months has been at the very least 7 days, 5 hours, or 78 1/2 hours a week. For the six weeks ending May 2nd this year (1862), the average was higher—8 days or 84 hours a week.”

⁷² This is not to be taken in the same sense as our surplus-labor-time. These gentlemen

gröberen Sorten mit Maschinen, die feineren mit der Hand (block printing) gedruckt. Die lebhaftesten Geschäftsmonate fallen zwischen Anfang Oktober und Ende April. Während dieser Periode dauert diese Arbeit häufig und fast ohne Unterbrechung von 6 Uhr vormittags bis 10 Uhr abends und tiefer in die Nacht.

261:6–262:0 J. Leach sagt aus:

“Letzten Winter“ (1862) „blieben von 19 Mädchen 6 weg infolge durch Überarbeitung zugezogener Krankheiten. Um sie wach zu halten, muß ich sie anschreien.“ W. Duffy: „Die Kinder konnten oft vor Müdigkeit die Augen nicht aufhalten, in der Tat, wir selbst können es oft kaum.“ J. Lightbourne: „Ich bin 13 Jahre alt ... Wir arbeiteten letzten Winter bis 9 Uhr abends und den Winter vorher bis 10 Uhr. Ich pflegte letzten Winter fast jeden Abend vom Schmerz wunder Füße zu schreien.“ G. Apsden: „Diesen meinen Jungen pflegte ich, als er 7 Jahre alt war, auf meinem Rücken hin und her über den Schnee zu tragen, und er pflegte 16 Stunden zu arbeiten; ... Ich habe oft niedergekniet, um ihn zu füttern, während er an der Maschine stand, denn er durfte sie nicht verlassen oder stillsetzen.“ Smith, der geschäftsführende Associé einer Manchester Fabrik: „Wir“ (er meint seine „Hände“, die für „uns“) „arbeiten ohne Unterbrechung für Mahlzeiten, so daß die Tagesarbeit von 10 1/2 Stunden um 4 1/2 Uhr nachmittags fertig ist, und alles spätere ist Überzeit.”⁷² (Ob dieser Herr Smith wohl keine Mahlzeit während 10 1/2 Stunden zu sich nimmt?) „Wir“ (derselbe Smith) „hören selten auf vor 6 Uhr abends“ (er meint mit der Konsumtion „unsrer“ Arbeitskraftmaschinen), „so daß wir“ (iterum Crispinus) „in der Tat das ganze Jahr durch Überzeit arbeiten ... Die Kinder und Erwachsen (152 Kinder und junge Personen unter 18 Jahren und 140 Erwachsene) „haben gleichmäßig während der letzten 18 Monate im Durchschnitt allermindestens 7 Tage und 5 Stunden in der Woche gearbeitet oder 78 1/2 Stunden wöchentlich. Für die 6 Wochen, endend am 2. Mai dieses Jahres“ (1863), „war der Durchschnitt höher—8 Tage oder 84 Stunden in der Woche!“

⁷² Dies ist nicht in unsrem Sinn der Surplus-arbeitszeit zu nehmen. Diese Herrn betrachten

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consider 10 1/2 hours of labor as the normal working-day, which includes of course the normal surplus-labor. After this begins "over-time" which is paid a little better.

die 10 1/2-stündige Arbeit als Normalarbeitstag, der also auch die normale Mehrarbeit einschließt. Dann beginnt „die Überzeit“, die etwas besser bezahlt wird.

Then a remark about overtime in general, which will be developed more systematically in

^{72 ctd} It will be seen later that the labor expended during the so-called normal day is paid below its value, so that the over-time is simply a capitalist trick in order to extort more surplus-labor, which it would still be, even if the labor-power expended during the normal working-day were properly paid.

^{72 ctd} Man wird bei einer späteren Gelegenheit sehen, daß die Verwendung der Arbeitskraft während des sogenannten Normaltages unter dem Werte bezahlt wird, so daß die „Überzeit“ ein bloßer Kapitalistenpfiß ist, um mehr „Mehrarbeit“ auszupressen, was es übrigens selbst dann bleibt, wenn die während des „Normaltages“ verwandte Arbeitskraft wirklich voll bezahlt wird.

255:1–2 Still this same Mr. Smith, who is so extremely devoted to the *pluralis majestatis*, adds with a smile, "Machine-work is not great." So the employers in the block-printing say: "Hand labor is more healthy than machine work." On the whole, manufacturers declare with indignation against the proposal "to stop the machines at least during meal-times."

262:1–2 Doch fügt derselbe Herr Smith, der dem *pluralis majestatis* so sehr ergeben ist, schmunzelnd hinzu: „Maschinenarbeit ist leicht.“ Und so sagen die Anwender des block printing: „Handarbeit ist gesünder als Maschinenarbeit.“ Im ganzen erklären sich die Herrn Fabrikanten mit Entrüstung gegen den Vorschlag, „die Maschinen wenigstens während der Mahlzeiten stillzusetzen“.

A clause, says Mr. Otley, manager of a wall-paper factory in the Borough, "which allowed work between, say 6 a.m. and 9 p.m. would suit us (!) very well, but the factory hours, 6 a.m. to 6 p.m., are not suitable. Our machine is always stopped for dinner. (What generosity!) There is no waste of paper and colour to speak of. But," he adds sympathetically, "I can understand the loss of time not being liked."

„Ein Gesetz“, sagt Herr Ottley, der Manager einer Tapetenfabrik im Borough (in London) ... das Arbeitsstunden von 6 Uhr morgens bis 9 Uhr abends erlaubte, würde uns (!) sehr wohl zusagen, aber die Stunden des Factory Act von 6 Uhr morgens bis 6 Uhr abends passen uns (!) nicht ... Unsre Maschine wird während des Mittagessens“ (welche Großmut) „stillgesetzt. Das Stillsetzen verursacht keinen nennenswerten Verlust an Papier und Farbe.“ „Aber“, fügt er sympathisch hinzu, „ich kann verstehen daß der damit verbundene Verlust nicht geliebt wird.“

255:3 The report of the Commission opines with naïvete that the fear of some "leading firms" of losing time, *i.e.*, the time for appropriating the labor of others, and thence losing profit is not a sufficient reason for allowing children under 13, and young persons under 18, working 12 to 16 hours per day, to lose their dinner, nor for giving it to them as coal and water are supplied to the steam-engine, soap to wool, oil to the wheel—as merely auxiliary material to the instruments of labor, during the process of production itself.⁷³

262:3/o Der Kommissionsbericht meint naiv, die Furcht einiger „leitenden Firmen“, Zeit, d.h. Aneignungszeit fremder Arbeit, und dadurch „Profit zu verlieren“, sei kein „hinreichender Grund“, um Kinder unter 13 und junge Personen unter 18 Jahren während 12–16 Stunden ihr Mittagmahl „verlieren zu lassen“ oder es ihnen zuzusetzen, wie man der Dampfmaschine Kohle und Wasser, der Wolle Seife, dem Rad Öl usw. zusetzt—während des Produktionsprozesses selbst, als bloßen Hilfsstoff des Arbeitsmittels.⁷³

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⁷³ I.c., Evidence, pp. 123, 124, 125, 140, and 54.

Baking was still a very antiquated branch of production, even at the time *Capital* was written.

256:1 No branch of industry in England (we do not take into account the making of bread by machinery recently introduced) has preserved up to the present day a method of production so archaic, so—as we see from the poets of the Roman Empire—pre-Christian, as baking. But capital, as was said earlier, is at first indifferent as to the technical character of the labor-process; at first it takes it just as it finds it.

⁷³ I.c., Appendix, p. 123, 124, 125, 140 u. LXIV.

263:1 Kein Industriezweig in England—(wir sehn von dem erst neuerdings sich Bahn brechenden Maschinenbrot ab)—hat so altertümliche, ja, wie man aus den Dichtern der römischen Kaiserzeit ersehn kann, vorchristliche Produktionsweise bis heute beibehalten als die Bäckerei. Aber das Kapital, wie früher bemerkt, ist zunächst gleichgültig gegen den technischen Charakter des Arbeitsprozesses, dessen es sich bemächtigt. Es nimmt ihn zunächst, wie es ihn vorfindet.

↑ The advent of capitalism by itself does not cause a change in the mode of production. Of course, after capitalism has been established, other mechanisms set in which eventually lead to a revolutionizing of this branch of production. This is why Marx writes here “at first.”

↓ State inspections were triggered not by overwork but by the adulterations of bread. Bread adulteration was already discussed in footnote 51 to paragraph 184:1/o of chapter Six.

256:2 The incredible adulteration of bread, especially in London, was first revealed by the House of Commons Committee “on the adulteration of articles of food” (1855–56), and Dr. Hassall’s work, “Adulterations detected.”⁷⁴ The consequence of these revelations was the Act of August 6th, 1860, “for preventing the adulteration of articles of food and drink,” an ineffective law, since it of course observes the tenderest consideration for every Free-trader who aims by the buying or selling of adulterated commodities “to turn an honest penny.”⁷⁵

263:2/o Die unglaubliche Brotverfälschung, namentlich in London, wurde zuerst enthüllt durch das Komitee des Unterhauses „über die Verfälschung von Nahrungsmitteln“ (1855–1856) und Dr. Hassalls Schrift „Adulterations detected“.⁷⁴ Die Folge dieser Enthüllungen war das Gesetz vom 6. August 1860: „for preventing the adulteration of articles of food and drink“, ein wirkungsloses Gesetz, da es natürlich die höchste Delikatesse gegen jeden freetrader beobachtet, der sich vornimmt, durch Kauf und Verkauf gefälschter Waren „to turn an honest penny“.⁷⁵

⁷⁴ Alum finely powdered, or mixed with salt, is a normal article of commerce bearing the significant name of “bakers’ stuff.”

⁷⁴ Alaun, fein gerieben oder mit Salz gemischt, ist ein normaler Handelsartikel, der den bezeichnenden Namen „Baker’s stuff“ führt.

↓ A brief more general digression about how free trade affects use-values begins with footnote 75.

⁷⁵ Soot is a well-known and very energetic form of carbon, and forms a manure that capitalistic chimney-sweeps sell to English farmers. Now in 1862 the British juryman had in a lawsuit to decide whether soot, with which, unknown to the buyer, 90% of dust and sand are mixed, is genuine soot in the commercial sense or adulter-

⁷⁵ Ruß ist bekanntlich eine sehr energische Form des Kohlenstoffs und bildet ein Düngemittel, das kapitalistische Schornsteinfeger an englische Pächter verkaufen. Es hatte nun 1862 der britische „Juryman“ in einem Prozeß zu entscheiden, ob Ruß, welchem ohne Wissen des Käufers 90% Staub und Sand beigemischt sind,

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ated soot in the legal sense. The “amis du commerce” decided it to be genuine commercial soot, and nonsuited the plaintiff farmer, who had in addition to pay the costs of the suit.

The Committee itself formulated more or less naïvely its conviction that Free-trade meant essentially trade with adulterated, or as the English ingeniously put it, “sophisticated” goods. In fact this kind of sophistry knows better than Protagoras how to make white black, and black white, and better than the Eleatics how to demonstrate *ad oculos* that everything real is merely an appearance.⁷⁶

„wirklicher“ Ruß im „kommerziellen“ Sinn oder „gefälschter“ Ruß im „gesetzlichen“ Sinn sei. Die „amis du commerce“ entschieden, es sei „wirklicher“ kommerzieller Ruß, und wiesen den klagenden Pächter ab, der noch obendrein die Prozeßkosten zu zahlen hatte.

Das Komitee selbst formulierte mehr oder minder naiv seine Überzeugung, daß Freihandel wesentlich den Handel mit gefälschten, oder wie der Engländer es witzig nennt, „sophistizierten Stoffen“ bedeute. In der Tat, diese Art „Sophistik“ versteht es besser als Protagoras, schwarz aus weiß und weiß aus schwarz zu machen, und besser als die Eleaten, den bloßen Schein alles Realen *ad oculos* zu demonstrieren.⁷⁶

Question 857 *Are adulterated products essential to free trade?*

⁷⁶ The French chemist, Chevallier, in his treatise on the “sophistications” of commodities, enumerates for many of the 600 or more articles which he passes in review, 10, 20, 30 different methods of adulteration. He adds that he does not know all the methods and does not mention all that he knows. He gives 6 kinds of adulteration of sugar, 9 of olive oil, 10 of butter, 12 of salt, 19 of milk, 20 of bread, 23 of brandy, 24 of meal, 28 of chocolate, 30 of wine, 32 of coffee, etc. Even God Almighty does not escape this fate. See Rouard de Card, “On the Falsifications of the Materials of the Sacrament.” (“De la falsification des substances sacramentelles,” Paris, 1856.)

⁷⁶ Der französische Chemiker Chevallier, in einer Abhandlung über die „sophistications“ der Waren, zählt unter 600 und einigen Artikeln, die er Revue passieren läßt, für viele derselben 10, 20, 30 verschiedene Methoden der Fälschung auf. Er fügt hinzu, er kenne nicht alle Methoden und erwähne nicht alle, die er kenne. Für den Zucker gibt er 6 Fälschungsarten, 9 für das Olivenöl, 10 für die Butter, 12 für das Salz, 19 für die Milch, 20 für das Brot, 23 für den Branntwein, 24 für Mehl, 28 für Schokolade, 30 für Wein, 32 für Kaffee etc. Selbst der liebe Herrgott entgeht diesem Schicksal nicht. Sieh Rouard de Card, „De la falsification des substances sacramentelles“, Paris 1856.

Question 858 *Is everything real only an appearance?*

256:3/o At all events the Committee had directed the attention of the public to its “daily bread,” and therefore to the baking trade. At the same time in public meetings and in petitions to Parliament rose the cry of the London journeymen bakers against their over-work, etc. The cry was so urgent that Mr. H. S. Tremeneheere, also a member of the Commission of 1863 several times mentioned, was appointed Royal Commissioner of Inquiry. His report,⁷⁷ together with the evidence given, roused not the heart of the public but its stomach.

264:1 Jedenfalls hatte das Komitee die Augen des Publikums auf sein „tägliches Brot“ und damit auf die Bäckerei gelenkt. Gleichzeitig erscholl in öffentlichen Meetings und Petitionen an das Parlament der Schrei der Londoner Bäckergesellen über Überarbeitung usw. Der Schrei wurde so dringend, daß Herr H. S. Tremeneheere, auch Mitglied der mehrerwähnten Kommission von 1863, zum königlichen Untersuchungskommissär bestellt wurde. Sein Bericht,⁷⁷ samt Zeugenaussagen, regte das Publikum auf, nicht sein Herz, sondern seinen Magen.

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The public was upset not so much about overwork but by the adulteration of their food.

⁷⁷ “Report, etc., relative to the grievances complained of by the journeymen bakers, etc., London, 1862,” and “Second Report, etc., London, 1863.”

Englishmen, always well up in the Bible, knew well enough that man, unless by elective grace a capitalist, or landlord, or sinecurist, is commanded to eat his bread in the sweat of his brow, but they did not know that he had to eat daily in his bread a certain quantity of human perspiration mixed with the discharge of abscesses, cobwebs, dead black-beetles, and putrid German yeast, without counting alum, sand, and other agreeable mineral ingredients.

⁷⁷ „Report etc. relating to the Grievances complained of by the Journeymen Bakers etc.“, London 1862, und „Second Report etc.“, London 1863.

Der bibelfeste Engländer wußte zwar, daß der Mensch, wenn nicht durch Gnadenwahl Kapitalist oder Landlord oder Sinekurist, dazu berufen ist, sein Brot im Schweiß seines Angesichts zu essen, aber er wußte nicht, daß er in seinem Brote täglich ein gewisses Quantum Menschenschweiß essen muß, getränkt mit Eiterbeulenausleerung, Spinnweb, Schaben-Leichnamen und fauler deutscher Hefe, abgesehn von Alaun, Sandstein und sonstigen angenehmen mineralischen Ingredienzien.

↑ The bible prepares the public for overwork but not for bread adulteration.

Question 859 *Why was the public more upset about the adulteration of bread than about the overwork in the bakeries?*

Without any regard to his holiness, Free-trade, the free baking-trade was therefore placed under the supervision of the State inspectors (Close of the Parliamentary session of 1863), and by the same Act of Parliament, work from 9 in the evening to 5 in the morning was forbidden for journeymen bakers under 18. The last clause speaks volumes about the over-work in this seemingly old-fashioned and homely line of business.

Ohne alle Rücksicht auf seine Heiligkeit, den „Freetrade“, wurde daher die anhero „freie“ Bäckerei der Aufsicht von Staatsinspektoren unterworfen (Ende der Parlamentssitzung 1863) und durch denselben Parlamentsakt die Arbeitszeit von 9 Uhr abends bis 5 Uhr morgens für Bäckerge-sellen unter 18 Jahren verboten. Die letzte Klausel spricht Bände über die Überarbeitung in diesem uns so altväterisch anheimelnden Geschäftszweig.

257:1/o “The work of a London journeyman baker begins, as a rule, at about eleven at night. At that hour he ‘makes the dough,’—a laborious process, which lasts from half an hour to three quarters of an hour, according to the size of the batch or the labor bestowed upon it. He then lies down upon the kneading-board, which is also the covering of the trough in which the dough is ‘made’; and with a sack under him, and another rolled up as a pillow, he sleeps for about a couple of hours. He is then engaged in a rapid and continuous labor for about five hours—throwing out the dough, ‘scaling it off,’ moulding it, putting it into the oven, preparing and baking rolls and fancy bread, taking the batch bread out of the oven, and up into the shop, etc., etc. The temper-

264:2/o „Die Arbeit eines Londoner Bäcker-gesellen beginnt in der Regel um 11 Uhr nachts. Zu dieser Stunde macht er den Teig, ein sehr mühsamer Prozeß, der 1/2 bis 3/4 Stunden währt, je nach der Größe des Gebäcks und seiner Feinheit. Er legt sich dann nieder auf das Knetbrett, das zugleich als Deckel des Trogs dient, worin der Teig gemacht wird, und schläft ein paar Stunden mit einem Mehlsack unter dem Kopf und einem andren Mehlsack auf dem Leib. Dann beginnt eine rasche und ununterbrochne Arbeit von 5 Stunden, Werfen, Wägen, Formen, in den Ofen schieben, aus dem Ofen holen usw. des Teiges. Die Temperatur eines Backhauses beträgt von 75 bis 90 Grad und in den kleinen Backhäusern eher mehr als weniger. Wenn das Geschäft,

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ature of a bakehouse ranges from about 75 to upwards of 90 degrees, and in the smaller bakehouses approximates usually to the higher rather than to the lower degree of heat. When the business of making the bread, rolls, etc., is over, that of its distribution begins, and a considerable proportion of the journeymen in the trade, after working hard in the manner described during the night, are upon their legs for many hours during the day, carrying baskets, or wheeling hand-carts, and sometimes again in the bakehouse, leaving off work at various hours between 1 and 6 p.m. according to the season of the year, or the amount and nature of their master's business; while others are again engaged in the bakehouse in 'bringing out' more batches until late in the afternoon.⁷⁸

⁷⁸ l.c., First Report, etc., p. vi.

"During what is called 'the London season', the operatives belonging to the 'full-priced' bakers at the West End of the town, generally begin work at 11 p.m., and are engaged in making the bread, with one or two short (sometimes very short) intervals of rest, up to 8 o'clock the next morning. They are then engaged all day long, up to 4, 5, 6, and as late as 7 o'clock in the evening carrying out bread, or sometimes in the afternoon in the bakehouse again, assisting in the biscuit-baking. They may have, after they have done their work, sometimes five or six, sometimes only four or five hours' sleep before they begin again. On Fridays they always begin sooner, some about ten o'clock, and continue in some cases, at work, either in making or delivering the bread up to 8 p.m. on Saturday night, but more generally up to 4 or 5 o'clock, Sunday morning. On Sundays the men must attend twice or three times during the day for an hour or two to make preparations for the next day's bread ... The men employed by the underselling masters (who sell their bread under the 'full price,' and who, as already pointed out, comprise three-fourths of the London bakers) have not only to work on the average longer hours, but their work is almost entirely confined to the bakehouse. The underselling masters generally sell their bread ... in the shop. If they send it out, which is not common, except as supplying chandlers' shops, they usu-

Brot, Wecken usw. zu machen, vollbracht ist, beginnt die Verteilung des Brots; und ein beträchtlicher Teil der Tagelöhner, nachdem er die beschriebne harte Nacharbeit vollbracht, trägt während des Tags das Brot in Körben, oder schiebt es in Karren von Haus zu Haus und operiert dazwischen auch manchmal im Backhaus. Je nach der Jahreszeit und dem Umfang des Geschäfts endet die Arbeit zwischen 1 und 6 Uhr nachmittags, während ein anderer Teil der Gesellen bis spät nachmittags im Backhaus beschäftigt ist."⁷⁸

⁷⁸ l.c. „First Report etc.“ p. VI/VII.

„Während der Londoner Saison beginnen die Gesellen der Bäcker zu ‚vollen‘ Brotpreisen im Westend regelmäßig um 11 Uhr nachts und sind mit dem Brotbacken, unterbrochen durch einen oder zwei oft sehr kurze Zwischenräume, bis 8 Uhr des nächsten Morgens beschäftigt. Sie werden dann bis 4, 5, 6, ja 7 Uhr zur Brotherumtragerei vernutzt oder manchmal mit Biskuitbacken im Backhaus. Nach vollbrachtem Werk genießen sie einen Schlaf von 6, oft nur von 5 und 4 Stunden. Freitags beginnt die Arbeit stets früher, sage abends 10 Uhr, und dauert ohne Unterlaß, sei es in der Zubereitung, sei es in der Kolportierung des Brots, bis den folgenden Samstag abend 8 Uhr, aber meist bis 4 oder 5 Uhr in Sonntag nacht hinein. Auch in den vornehmen Bäckereien, die das Brot zum ‚vollen Preise‘ verkaufen, muß wieder 4 bis 5 Stunden am Sonntag vorbereitende Arbeit für den nächsten Tag verrichtet werden ... Die Bäcker Gesellen der ‚underselling masters‘ (die das Brot unter dem vollen Preise verkaufen), „und diese betragen, wie früher bemerkt, über 3/4 der Londoner Bäcker, haben noch längere Arbeitsstunden, aber ihre Arbeit ist fast ganz auf das Backhaus beschränkt, da ihre Meister, die Lieferung an kleine Kramladen ausgenommen, nur in der eignen Boutique verkaufen. Gegen Ende der Woche ... d.h. am Donnerstag, beginnt hier die Arbeit um 10 Uhr in der Nacht und dauert mit nur geringer Unterbre-

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ally employ other hands for that purpose. It is not their practice to deliver bread from house to house. Towards the end of the week . . . the men begin on Thursday night at 10 o'clock, and continue on with only slight intermission until late on Saturday evening.”⁷⁹

⁷⁹ l.c., p. lxxi.

Competitors recognize that undersellers base their business on exploitation, even though they don't see that their own business is based on exploitation too.

258:1–2 Even the bourgeois intellect understands the position of the “underselling” masters. “The unpaid labor of the men was made the source whereby the competition was carried on.”⁸⁰ And the “full-priced” baker denounces his underselling competitors to the Commission of Inquiry as thieves of foreign labor and adulterators.

“They only exist now by first defrauding the public, and next getting 18 hours' work out of their men for 12 hours' wages.”⁸¹

⁸⁰ George Read, “The History of Baking,” London, 1848, p. 16.

⁸¹ *Report (First) etc. Evidence*. Testimony of the “full-priced” baker Cheeseman, p. 108.

258:3 The adulteration of bread and the formation of a class of bakers that sells the bread below the full price, date from the beginning of the 18th century, from the time when the corporate character of the trade was lost, and the capitalist in the form of the miller or flour-factor, rises behind the nominal master baker⁸². Thus was laid the foundation of capitalistic production in this trade, of the unlimited extension of the working-day and of night-labor, although the latter only since 1824 gained a serious footing, even in London.⁸³

⁸² George Read, l.c. At the end of the 17th and the beginning of the 18th centuries the factors (agents) that crowded into every possible trade were still denounced as “public nuisances.” Thus the Grand Jury at the quarter session of the Justices of the Peace for the County of Somerset, addressed a presentment to the Lower House which, among other things, states, “that these factors of Blackwell Hall are a Public Nuisance and Prejudice to the Clothing Trade, and ought to be put

chung bis tief in Sonntag nacht hinein.”⁷⁹

⁷⁹ l.c., p. LXXI.

265:1–2 Von den „underselling masters“ begreift selbst der bürgerliche Standpunkt: „die unbezahlte Arbeit der Gesellen (the unpaid labor of the men) bildet die Grundlage ihrer Konkurrenz.“⁸⁰ Und der „full priced baker“ denunziert seine „underselling“ Konkurrenten der Untersuchungskommission als Diebe fremder Arbeit und Fälscher.

„Sie reussieren nur durch den Betrug des Publikums und dadurch, daß sie 18 Stunden aus ihren Gesellen für einen Lohn von 12 Stunden herauschlagen.“⁸¹

⁸⁰ George Read, „The History of Baking“, London 1848, p. 16.

⁸¹ „Report (First) etc. Evidence.“ Aussage des „full priced baker“ Cheesman, p. 108.

266:1 Die Brotfälschung und die Bildung einer Bäckerklasse, die das Brot unter dem vollen Preis verkauft, entwickelten sich in England seit Anfang des 18. Jahrhunderts, sobald der Zunftcharakter des Gewerbs verfiel und der Kapitalist in der Gestalt von Müller oder Mehlfaktor hinter den nominalen Bäckermeister trat.⁸² Damit war die Grundlage zur kapitalistischen Produktion, zur maßlosen Verlängerung des Arbeitstages und Nachtarbeit gelegt, obgleich letztere selbst in London erst 1824 ernsthaft Fuß faßte.⁸³

⁸² George Read, l.c. Ende des 17. und anfangs des 18. Jahrhunderts wurden die in alle möglichen Gewerbe sich eindringenden Factors (Agenten) noch offiziell als „Public Nuisances“ denunziert. So erließ z.B. die Grand Jury bei der vierteljährigen Friedensrichtersitzung in der Grafschaft Somerset, ein „presentment“ an das Unterhaus, worin es u.a. heißt: „daß diese Agenten von Blackwell Hall ein öffentlicher Unfug sind und dem Tuchgewerbe Abbruch tun und als

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down as a Nuisance.” “The Case of our English Wool., etc.,” London, 1685, pp. 6, 7.

⁸³ First Report, etc., p. viii.

258:4/o After what has just been said, it will be understood that the Report of the Commission classes journeymen bakers among the short-lived laborers, who, having by good luck escaped the normal decimation of the children of the working-class, rarely reach the age of 42. Nevertheless, the baking trade is always overwhelmed with applicants. The sources of the supply of these labor-powers to London are Scotland, the western agricultural districts of England, and Germany.

259:1–2 In the years 1858–60, the journeymen bakers in Ireland organised at their own expense great meetings to agitate against night and Sunday work. The public—e.g., at the Dublin meeting in May, 1860—took their part with Irish warmth. As a result of this movement, day-labor alone was successfully established in Wexford, Kilkenny, Clonmel, Waterford, etc.

“In Limerick, where the grievances of the journeymen are demonstrated to be excessive, the movement has been defeated by the opposition of the master bakers, the miller bakers being the greatest opponents. The example of Limerick led to a retrogression in Ennis and Tipperary. In Cork, where the strongest possible demonstration of feeling took place, the masters, by exercising their power of turning the men out of employment, have defeated the movement. In Dublin, the master bakers have offered the most determined opposition to the movement, and by discountenancing as much as possible the journeymen promoting it, have succeeded in leading the men into acquiescence in Sunday work and night-work, contrary to the convictions of the men.”⁸⁴

⁸⁴ Report of Committee on the Baking Trade in Ireland for 1861.

↓ Tough words but no actions, although they could easily have acted:

259:3–4 The Committee of the English Government, which Government, in Ireland, is armed to the teeth, and generally knows

Schädlinge unterdrückt werden sollten“. („The Case of our English Wool etc.“, London 1685, p. 6, 7.)

⁸³ „First Report etc.“, p. VIII.

266:2 Man wird nach dem Vorhergehenden verstehen, daß der Kommissionsbericht die Bäcker gesellen zu den kurzlebigen Arbeitern zählt, die, nachdem sie der unter allen Teilen der Arbeiterklasse normalen Kinderdezimation glücklich entwischt sind, selten das 42. Lebensjahr erreichen. Nichtsdestoweniger ist das Bäcker gewerbe stets mit Kandidaten überfüllt. Die Zufuhrquellen dieser „Arbeitskräfte“ für London sind Schottland, die westlichen Agrikulturdistrikte Englands und—Deutschland.

266:3–4 In den Jahren 1858–1860 organisierten die Bäcker gesellen in Irland auf ihre eignen Kosten große Meetings zur Agitation gegen die Nacht- und Sonntagsarbeit. Das Publikum, z.B. auf dem Maimeeting zu Dublin, 1860, ergriff mit irischer Wärme Partei für sie. Ausschließliche Tagarbeit wurde durch diese Bewegung in der Tat erfolgreich durchgesetzt zu Wexford, Kilkenny, Clonmel, Waterford usw.

„Zu Limerick, wo die Qualen der Lohn gesellen bekanntermaßen alles Maß überstiegen, scheiterte diese Bewegung an der Opposition der Bäckermeister, namentlich der Bäcker-Müller. Das Beispiel Limericks führte zum Rückschritt in Ennis und Tipperary. Zu Cork, wo der öffentliche Unwille sich in der lebhaftesten Form kundgab, vereitelten die Meister die Bewegung durch den Gebrauch ihrer Macht, die Gesellen an die Luft zu setzen. Zu Dublin leisteten die Meister den entschiedensten Widerstand und zwangen durch Verfolgung der Gesellen, die an der Spitze der Agitation standen, den Rest zum Nachgeben, zur Fügung in die Nacht- und Sonntagsarbeit.“⁸⁴

⁸⁴ „Report of Committee on the Baking Trade in Ireland for 1861.“

267:1–2 Die Kommission der in Irland bis an die Zähne gewaffneten englischen Regierung remonstriert leichenbitterlich ge-

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how to show it, remonstrates in mild, though funereal, tones with the implacable master bakers of Dublin, Limerick, Cork, etc.: “The Committee believe that the hours of labor are limited by natural laws, which cannot be violated with impunity. That for master bakers to induce their workmen, by the fear of losing employment, to violate their religious convictions and their better feelings, to disobey the laws of the land, and to disregard public opinion (this all refers to Sunday labor), is calculated to provoke ill-feeling between workmen and masters, ... and affords an example dangerous to religion, morality, and social order ... The Committee believe that any constant work beyond 12 hours a-day encroaches on the domestic and private life of the workingman, and so leads to disastrous moral results, interfering with each man’s home, and the discharge of his family duties as a son, a brother, a husband, a father. That work beyond 12 hours has a tendency to undermine the health of the workingman, and so leads to premature old age and death, to the great injury of families of working-men, thus deprived of the care and support of the head of the family when most required.”⁸⁵

⁸⁵ l.c.

Agricultural laborers in Scotland (rough climate, Sunday work). *Railway operators* in England. Long hours lead to accidents, but juries do not seem to recognize the underlying reasons! The second time that Marx is critical of pro-capitalist public opinion.

259:5/o So far, we have dealt with Ireland. On the other side of the channel, in Scotland, the agricultural laborer, the ploughman, protests against his 13–14 hours’ work in the most inclement climate, with 4 hours’ additional work on Sunday (in this land of Sabbatarians!),⁸⁶ whilst, at the same time, three railway men are standing before a London coroner’s jury—a guard, an engine-driver, a signalman. A tremendous railway accident has hurried hundreds of passengers into another world. The negligence of the employee is the cause of the misfortune. They declare with one voice

gen die unerbittlichen Bäckermeister von Dublin, Limerick, Cork usw.: „Das Komitee glaubt, daß die Arbeitsstunden durch Naturgesetze beschränkt sind, die nicht ungestraft verletzt werden. Indem die Meister durch die Drohung, sie fortzujagen, ihre Arbeiter zur Verletzung ihrer religiösen Überzeugung, zum Ungehorsam gegen das Landesgesetz und die Verachtung der öffentlichen Meinung zwingen“ (dies letztre bezieht sich alles auf die Sonntagsarbeit), „setzen sie böses Blut zwischen Kapital und Arbeit und geben ein Beispiel, gefährlich für Religion, Moralität und öffentliche Ordnung ... Das Komitee glaubt, daß die Verlängerung des Arbeitstags über 12 Stunden ein usurpatorischer Eingriff in das häusliche und Privatleben des Arbeiters ist und zu unheilvollen moralischen Resultaten führt, durch Einmischung in die Häuslichkeit eines Mannes und die Erfüllung seiner Familienpflichten als Sohn, Bruder, Gatte und Vater. Arbeit über 12 Stunden hat die Tendenz, die Gesundheit des Arbeiters zu untergraben, führt zu vorzeitiger Alterung und frühem Tod und daher zum Unglück der Arbeiterfamilien, die der Vorsorge und der Stütze des Familienhaupts grade im notwendigsten Augenblick beraubt werden“ („are deprived“).⁸⁵

⁸⁵ l.c.

267:3/o Wir waren eben in Irland. Auf der andren Seite des Kanals, in Schottland, denunziert der Ackerbauarbeiter, der Mann des Pfluges, seine 13- bis 14stündige Arbeit, im rauhesten Klima, mit vierstündiger Zusatzarbeit für den Sonntag (in diesem Lande der Sabbat-Heiligen!),⁸⁶ während vor einer Londoner Grand Jury gleichzeitig drei Eisenbahnarbeiter stehn, ein Personenkondukteur, ein Lokomotivführer und ein Signalgeber. Ein großes Eisenbahnunglück hat Hunderte von Passagieren in die andre Welt expediert. Die Nachlässigkeit der Eisenbahnarbeiter ist die Ursache des Unglücks. Sie

before the jury that ten or twelve years before, their labor only lasted eight hours a day. During the last five or six years it had been screwed up to 14, 18, and 20 hours, and under a specially severe pressure of holiday-makers, at times of excursion trains, it often lasted for 40 or 50 hours without a break. They were ordinary men, not Cyclops. At a certain point their labor-power failed. Torpor seized them. Their brain ceased to think, their eyes to see. The thoroughly "respectable" British jurymen answered by a verdict that sent them to the next assizes on a charge of manslaughter, and, in a gentle "rider" to their verdict, expressed the pious hope that the capitalistic magnates of the railways would, in future, be more extravagant in the purchase of a sufficient quantity of labor-power, and more "abstemious", more "self-denying," more "thrifty," in the draining of paid labor-power.⁸⁷

⁸⁶ Public meeting of agricultural laborers at Lasswade, near Edinburgh, January 5th, 1866. (See *Workman's Advocate*, January 13th, 1866.) The formation since the close of 1865 of a Trades' Union among the agricultural laborers at first in Scotland is a historic event. In one of the most oppressed agricultural districts of England, Buckinghamshire, the laborers, in March, 1867, made a great strike for the raising of their weekly wage from 9–10 shillings to 12 shillings. (It will be seen from the preceding passage that the movement of the English agricultural proletariat, entirely crushed since the suppression of its violent manifestations after 1830, and especially since the introduction of the new Poor Laws, begins again in the sixties, until it becomes finally epoch-making in 1872. I return to this in the 2nd volume, as well as to the Blue books that have appeared since 1867 on the position of the English land laborers. Addendum to the 3rd ed.)

⁸⁷ *Reynolds' Newspaper*, January, 1866.—Every week this same paper has, under the sensational headings, "Fearful and fatal accidents," "Appalling tragedies," etc., a whole list of fresh railway catastrophes. On these an employe on

erklären vor den Geschwornen einstimmig, vor 10 bis 12 Jahren habe ihre Arbeit nur 8 Stunden täglich gedauert. Während der letzten 5–6 Jahre habe man sie auf 14, 18 und 20 Stunden aufgeschraubt und bei besonders lebhaftem Zudrang der Reiselustigen, wie in den Perioden der Exkursionszüge, währe sie oft ununterbrochen 40–50 Stunden. Sie seien gewöhnliche Menschen und keine Zyklopen. Auf einem gegebenen Punkt versage ihre Arbeitskraft. Torpor ergreife sie. Ihr Hirn höre auf zu denken und ihr Auge zu sehn. Der ganz und gar „respectable British Juryman“ antwortet durch ein Verdikt, das sie wegen „manslaughter“ (Totschlag) vor die Assisen schickt und in einem milden Anhang den frommen Wunsch äußert, die Herren Kapitalmagnaten der Eisenbahn möchten doch in Zukunft verschwenderischer im Ankauf der nötigen Anzahl von Arbeitskräften“ und „enthaltamer“ oder „entsagender“ oder „sparsamer“ in der Aussaugung der bezahlten Arbeitskraft sein.⁸⁷

⁸⁶ Öffentliches Meeting der Agrikulturarbeiter in Lasswade, bei Glasgow, vom 5. Jan. 1866. (Sieh „*Workman's Advocate*“ vom 13. Jan. 1866.) Die Bildung, seit Ende 1865, einer Trade's Union unter den Agrikulturarbeitern, zunächst in Schottland, ist ein historisches Ereignis. In einem der unterdrücktesten Agrikulturdistrikte Englands, in Buckinghamshire, machten die Lohnarbeiter März 1867 einen großen Strike zur Erhöhung des Wochenlohns von 9–10 sh. auf 12 sh.—(Man sieht aus Vorstehendem, daß die Bewegung des englischen Ackerbau-proletariats, seit Unterdrückung seiner gewaltsamen Demonstrationen nach 1830 und namentlich seit Einführung des neuen Armengesetzes ganz und gar gebrochen, in den sechziger Jahren wieder beginnt, bis sie endlich 1872 epochemachend wird. Ich komme hierauf im II. Band zurück, ebenso auf die seit 1867 erschienenen Blaubücher über die Lage des englischen Landarbeiters. Zusatz zur 3. Aufl.)

⁸⁷ „*Reynolds' Paper*“, [21.] Jan. 1866. Woche für Woche bringt dasselbe Wochenblatt gleich darauf, unter den „sensational headings“: „Fearful and fatal accidents“, „Appalling tragedies“ usw., eine ganze Liste neuer Eisenbahnkatastro-

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the North Staffordshire line comments: “Everyone knows the consequences that may occur if the driver and fireman of a locomotive engine are not continually on the look-out. How can that be expected from a man who has been at such work for 29 or 30 hours, exposed to the weather, and without rest. The following is an example which is of very frequent occurrence:— One fireman commenced work on the Monday morning at a very early hour. When he had finished what is called a day’s work, he had been on duty 14 hours 50 minutes. Before he had time to get his tea, he was again called on for duty. . . The next time he finished he had been on duty 14 hours 25 minutes, making a total of 29 hours 15 minutes without intermission. The rest of the week’s work was made up as follows: – Wednesday, 15 hours; Thursday, 15 hours 35 minutes; Friday, 14 1/2 hours; Saturday, 14 hours 10 minutes, making a total for the week of 88 hours 40 minutes. Now, sir, fancy his astonishment on being paid 6 1/4 days for the whole. Thinking it was a mistake, he applied to the time-keeper, . . . and inquired what they considered a day’s work, and was told 13 hours for a goods man (*i.e.*, 78 hours). . . He then asked for what he had made over and above the 78 hours per week, but was refused. However, he was at last told they would give him another quarter, *i.e.*, 10 d.” L.c., 4th February 1866.

phen. Darauf antwortet ein Arbeiter von der North Staordlinie: „Jedermann kennt die Folgen, wenn die Aufmerksamkeit von Lokomotivenführer und Heizer einen Augenblick erlahmt. Und wie ist es anders möglich bei maßloser Verlängerung der Arbeit, im rauhsten Wetter, ohne Pause und Erholung? Nehmt als ein Beispiel, wie es täglich vorkommt, folgenden Fall. Letzten Montag begann ein Heizer sehr früh morgens sein Tagewerk. Er endete es nach 14 Stunden 50 Minuten. Bevor er auch nur die Zeit hatte, seinen Tee zu nehmen, rief man ihn von neuem an die Arbeit. Er hatte also 29 Stunden 15 Minuten ununterbrochen durchzuschauen. Der Rest seines Wochenwerks aufgemacht wie folgt: Mittwoch 15 Stunden; Donnerstag 15 Stunden 35 Minuten; Freitag 14 1/2 Stunden; Sonnabend 14 Stunden 10 Minuten; zusammen für die Woche 88 Stunden 30 Minuten. Und nun denkt euch sein Erstaunen, als er nur Zahlung für 6 Arbeitstage erhielt. Der Mann war ein Neuling und fragte, was man unter einem Tagewerk verstehe. Antwort: 13 Stunden, also 78 Stunden per Woche. Aber wie mit der Zahlung für die überschüssigen 10 Stunden 30 Minuten? Nach langem Hader erhielt er eine Vergütung von 10 d.“ (noch nicht 10 Silbergroschen). (l.c., Nr. vom 4. Februar 1866.)

Question 860 *Why did the public not acknowledge that the overwork was the cause of the train accidents?*

Two more very diverse examples showing that “before capital all men are alike”: *Milliner* (Putzmacherin) long hours, overtime before the balls, overfull ateliers. *Blacksmith*: Hard labor and long hours surpassing human capacity.

261:1 From the motley crowd of laborers of all callings, ages, sexes, that press on us more busily than the souls of the slain on Ulysses, on whom—without referring to the Blue books under their arms—we see at a glance the mark of over-work, let us take two more figures whose striking contrast proves that before capital all men are alike—a milliner and a blacksmith.

261:2–262:3 In the last week of June, 1863, all the London daily papers published a paragraph with the “sensational” head-

268:1/o Aus dem buntscheckigen Haufen der Arbeiter von allen Professionen, Altern, Geschlechtern, die eifriger auf uns andrängen als die Seelen der Erschlagenen auf den Odysseus und denen man, ohne die Blaubücher unter ihren Armen, auf den ersten Blick die Überarbeit ansieht, greifen wir noch zwei Figuren heraus, deren frappanter Kontrast beweist, daß vor dem Kapital alle Menschen gleich sind—eine Putzmacherin und einen Grobschmied.

269:1–270:3 In den letzten Wochen vom Juni 1863 brachten alle Londoner Tagesblätter einen Paragraph mit dem „sensa-

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ing, “Death from simple over-work.” It dealt with the death of the milliner, Mary Anne Walkley, 20 years of age, employed in a highly-respectable dressmaking establishment, exploited by a lady with the pleasant name of Elise. The old, often-told story,⁸⁸ was once more recounted. This girl worked, on an average, 16 1/2 hours, during the season often 30 hours, without a break, whilst her failing labor-power was revived by occasional supplies of sherry, port, or coffee. It was just now the height of the season. It was necessary to conjure up in the twinkling of an eye the gorgeous dresses for the noble ladies bidden to the ball in honour of the newly-imported Princess of Wales. Mary Anne Walkley had worked without intermission for 26 1/2 hours, with 60 other girls, 30 in one room, that only afforded 3 of the cubic feet of air required for them. At night, they slept in pairs in one of the stifling holes into which the bedroom was divided by partitions of board.⁸⁹ And this was one of the best millinery establishments in London. Mary Anne Walkley fell ill on the Friday, died on Sunday, without, to the astonishment of Madame Elise, having previously completed the work in hand. The doctor, Mr. Keys, called too late to the deathbed, duly bore witness before the coroner’s jury that

“Mary Anne Walkley had died from long hours of work in an over-crowded work-room, and a too small and badly ventilated bedroom.”

In order to give the doctor a lesson in how to live well, the coroner’s jury thereupon brought in a verdict that

“the deceased had died of apoplexy, but there was reason to fear that her death had been accelerated by over-work in an over-crowded workroom, etc.”

⁸⁸ Cf F. Engels, l.c., pp. 253, 254.

⁸⁹ Dr. Letheby, Consulting Physician of the

tional“ Aushängeschild: „Death from simple Overwork“ (Tod von einfacher Überarbeit). Es handelte sich um den Tod der Putzmacherin Mary Anne Walkley, zwanzigjährig, beschäftigt in einer sehr respektablen Hofputzmanufaktur, exploitiert von einer Dame mit dem gemütlichen Namen Elise. Die alte oft erzählte Geschichte ward nun neu entdeckt,⁸⁸ daß diese Mädchen durchschnittlich 16 1/2 Stunden, während der Saison aber oft 30 Stunden ununterbrochen arbeiten, indem ihre versagende „Arbeitskraft“ durch gelegentliche Zufuhr von Sherry, Portwein oder Kaffee flüssig erhalten wird. Und es war grade die Höhe der Saison. Es galt, die Prachtkleider edler Ladies für den Huldigungsball bei der frisch importierten Prinzessin von Wales im Umsehn fertigzuzaubern. Mary Anne Walkley hatte 26 1/2 Stunden ohne Unterlaß gearbeitet zusammen mit 60 andren Mädchen, je 30 in einem Zimmer, das kaum 1/3 der nötigen Kubikzolle Luft gewährte, während sie nachts zwei zu zwei ein Bett teilten in einem der Sticklöcher, worin ein Schlafzimmer durch verschiedene Bretterwände abgepfercht ist.⁸⁹ Und dies war eine der besseren Putzmachereien Londons. Mary Anne Walkley erkrankte am Freitag und starb am Sonntag, ohne, zum Erstaunen von Frau Elise, auch nur vorher das letzte Putzstück fertigzumachen. Der zu spät ans Sterbebett gerufne Arzt, Herr Keys, bezeugte vor der „Coroner’s Jury“ in dünnen Worten:

„Mary Anne Walkley sei gestorben an langen Arbeitsstunden in einem überfüllten Arbeitszimmer und überengem, schlechtventiliertem Schlafgemach.“

Um dem Arzt eine Lektion in guter Lebensart zu geben, erklärte dagegen die „Coroner’s Jury“:

„Die Hingeschiedne sei gestorben an der Apoplexie, aber es sei Grund, zu fürchten, daß ihr Tod durch Überarbeit in einer überfüllten Werkstatt usw. beschleunigt worden sei.

⁸⁸ Vgl. F. Engels, l.c. p. 253, 254.

⁸⁹ Dr. Letheby, beim Board of Health funktio-

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Board of Health, declared: "The minimum of air for each adult ought to be in a sleeping room 300, and in a dwelling room 500 cubic feet." Dr. Richardson, Senior Physician to one of the London Hospitals: "With needlewomen of all kinds, including milliners, dressmakers, and ordinary sempstresses, there are three miseries—over-work, deficient air, and either deficient food or deficient digestion ... Needlework, in the main, ... is infinitely better adapted to women than to men. But the mischiefs of the trade, in the metropolis especially, are that it is monopolised by some twenty-six capitalists, who, under the advantages that spring from capital, can bring in capital to force economy out of labor. This power tells throughout the whole class. If a dressmaker can get a little circle of customers, such is the competition that, in her home, she must work to the death to hold together, and this same over-work she must of necessity inflict on any who may assist her. If she fail, or do not try independently, she must join an establishment, where her labor is not less, but where her money is safe. Placed thus, she becomes a mere slave, tossed about with the variations of society. Now at home, in one room, starving, or near to it, then engaged 15, 16, aye, even 18 hours out of the 24, in an air that is scarcely tolerable, and on food which, even if it be good, cannot be digested in the absence of pure air. On these victims, consumption, which is purely a disease of bad air, feeds." Dr. Richardson: "Work and Over-work," in "Social Science Review," 18th July, 1863.

262:4 "Our white slaves," cried the *Morning Star*, the organ of the Free-traders, Cobden and Bright, "our white slaves, who are toiled into the grave, for the most part silently pine and die."⁹⁰

⁹⁰ *Morning Star*, 23rd June, 1863.—*The Times* made use of the circumstance to defend the American slave-owners against Bright, etc. "Very many of us think," says a leader of July 2nd, 1863, "that, while we work our own young

nierender Arzt, erklärt damals: „Das Minimum für die Erwachsenen sollte in einem Schlafzimmer 300 Kubikfuß und in einem Wohnzimmer 500 Kubikfuß Luft sein.“ Dr. Richardson, Oberarzt eines Londoner Hospitals: „Näherinnen aller Art, Putzmacherinnen, Kleidermacherinnen und gewöhnliche Näherinnen leiden an dreifachem Elend—Überarbeit, Luftmangel und Mangel an Nahrung oder Mangel an Verdauung. Im ganzen paßt diese Art Arbeit unter allen Umständen besser für Weiber als für Männer. Aber es ist das Unheil des Geschäfts, daß es, namentlich in der Hauptstadt, von einigen 26 Kapitalisten monopolisiert wird, die durch Machtmittel, welche dem Kapital entspringen (that spring from capital), Ökonomie aus der Arbeit herauszwingen (force economy out of labor; er meint, Auslagen ökonomisieren durch Verschwendung der Arbeitskraft). Ihre Macht wird im Bereich dieser ganzen Klasse von Arbeiterinnen gefühlt. Kann eine Kleidermacherin einen kleinen Kreis von Kunden gewinnen, so zwingt die Konkurrenz sie, sich zu Hause totzuarbeiten, um ihn zu erhalten, und mit derselben Überarbeit muß sie notwendig ihre Gehilfinnen heimsuchen. Mißlingt ihr Geschäft oder kann sie sich nicht selbständig etablieren, so wendet sie sich an ein Etablissement, wo die Arbeit nicht geringer, aber die Zahlung sicher ist. So gestellt, wird sie eine reine Sklavin, hin und her geschleudert von jeder Flutung der Gesellschaft; bald zu Hause in einem kleinen Zimmer verhungern, oder nahe so; dann wieder von 24 Stunden 15, 16 ja 18 Stunden beschäftigt in kaum erträglicher Luft und mit einer Nahrung, die, selbst wenn gut, wegen Abwesenheit reiner Luft nicht verdaut werden kann. Von diesen Opfern lebt die Schwindsucht, welche nichts als eine Luftkrankheit ist.“ (Dr. Richardson, „Work and Overwork“ in „Social Science Review“, 18. Juli 1863.)

270:4 Unsre „weißen Sklaven“, rief der „Morning Star“, das Organ der Freihandelsheer Cobden und Bright, „unsere weißen Sklaven werden in das Grab hineingearbeitet und verderben und sterben ohne Sang und Klang“.⁹⁰

⁹⁰ „Morning Star“, 23. Juni 1863. Die „Times“ benutzte den Vorfall zur Verteidigung der amerikanischen Sklavenhalter gegen Bright usw. „Sehr viele von uns“, sagt sie, „meinen, daß, solange wir unsre eignen jungen Frauenzimmer zu Tode

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women to death, using the scourge of starvation, instead of the crack of the whip, as the instrument of compulsion, we have scarcely a right to hound on fire and slaughter against families who were born slave-owners, and who, at least, feed their slaves well, and work them lightly." In the same manner, the *Standard*, a Tory organ, fell foul of the Rev. Newman Hall: "He excommunicated the slave-owners, but prays with the fine folk who, without remorse, make the omnibus drivers and conductors of London, etc., work 16 hours a-day for the wages of a dog." Finally, spake the oracle, Thomas Carlyle, of whom I wrote, in 1850, "Zum Teufel ist der Genius, der Kultus ist geblieben." In a short parable, he reduces the one great event of contemporary history, the American Civil War, to this level, that the Peter of the North wants to break the head of the Paul of the South with all his might, because the Peter of the North hires his labor by the day, and the Paul of the South hires his by the life. ("Macmillan's Magazine." *Ilias Americana* in nuce. August, 1863.) Thus, the bubble of Tory sympathy for the urban workers—by no means for the rural—has burst at last. The sum of all is—slavery!

arbeiten mit der Geißel des Hungers statt dem Knall der Peitsche, wir kaum das Recht haben, Feuer und Schwert auf Familien zu hetzen, die als Sklavenhalter geboren waren und ihre Sklaven mindestens gut nähren und mäßig arbeiten lassen." („Times“, 2. Juli 1863.) In derselben Weise kanzelte der „Standard“, ein Toryblatt, den Rev. Newman Hall ab: „Er exkommuniziert die Sklavenhalter, bete aber mit den braven Leuten, die Kutscher und Omnibusführer von London usw. nur 16 Stunden täglich für einen Hundelohn arbeiten ließen.“ Endlich sprach das Orakel, Herr Thomas Carlyle, von dem ich schon 1850 drucken ließ: „Zum Teufel ist der Genius, der Kultus ist geblieben.“ In einer kurzen Parabel reduziert er das einzig großartige Ereignis der Zeitgeschichte, den Amerikanischen Bürgerkrieg, darauf, daß der Peter vom Norden dem Paul vom Süden mit aller Gewalt den Hirnschädel einschlagen will, weil der Peter vom Norden seinen Arbeiter „täglich“ und der Paul vom Süden ihn für „Lebzeit mietet“. „Macmillan's Magazine“. *Ilias Americana* in nuce. Augustheft 1863.) So ist endlich die Schaumblase der Torysympathie für den städtischen—beileibe nicht den ländlichen!—Lohnarbeiter geplatzt. Der Kern heißt—Sklaverei!

263:1 "It is not in dressmakers' rooms that working to death is the order of the day, but in a thousand other places; in every place I had almost said, where 'a thriving business' has to be done . . . We will take the blacksmith as a type. If the poets were true, there is no man so hearty, so merry, as the blacksmith; he rises early and strikes his sparks before the sun; he eats and drinks and sleeps as no other man. Working in moderation, he is, in fact, in one of the best of human positions, physically speaking. But we follow him into the city or town, and we see the stress of work on that strong man, and what then is his position in the death-rate of his country. In Marylebone, blacksmiths die at the rate of 31 per thousand per annum, or 11 above the mean of the male adults of the country in its entirety. The occupation, instinctive almost as a portion of human art, unobjectionable as a branch of human industry, is made by mere excess of work, the destroyer of the man. He can strike so many blows per day, walk so many steps, breathe so many breaths, produce so much work, and live an average, say of fifty years; he is made to

271:1 „Zu Tod arbeiten ist die Tagesordnung, nicht nur in der Werkstätte der Putzmacherinnen, sondern in tausend Plätzen, ja an jedem Platz, wo das Geschäft im Zug ist . . . Laßt uns den Grobschmied als Beispiel nehmen. Wenn man den Dichtern glauben darf, gibt es keinen so lebenskräftigen, lustigen Mann als den Grobschmied. Er erhebt sich früh und schlägt Funken vor der Sonne; er ißt und trinkt und schläft wie kein anderer Mensch. Rein physisch betrachtet, befindet er sich, bei mäßiger Arbeit, in der Tat in einer der besten menschlichen Stellungen. Aber wir folgen ihm in die Stadt und sehn die Arbeitslast, die auf den starken Mann gewälzt wird, und welchen Rang nimmt er ein in den Sterblichkeitslisten unsres Landes? In Marylebone“ (einem der größten Stadtviertel Londons) „sterben Grobschmiede in dem Verhältnis von 31 per 1000 jährlich, oder 11 über der Durchschnittssterblichkeit erwachsener Männer in England. Die Beschäftigung, eine fast instinktive Kunst der Menschheit, an und für sich tadellos, wird durch bloße Übertreibung der Arbeit der Zerstörer des Mannes. Er kann so

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strike so many more blows, to walk so many more steps, to breathe so many more breaths per day, and to increase altogether a fourth of his life. He meets the effort; the result is, that producing for a limited time a fourth more work, he dies at 37 for 50.”⁹¹

⁹¹ Dr. Richardson, l.c., pp. 476 ff.

viel Hammerschläge täglich schlagen, so viel Schritte gehn, so viel Atemzüge holen, so viel Werk verrichten, und durchschnittlich sage 50 Jahre leben. Man zwingt ihn, so viel mehr Schläge zu schlagen, so viel mehr Schritte zu gehn, so viel öfter des Tags zu atmen, und alles zusammen seine Lebensausgabe täglich um ein Viertel zu vermehren. Er macht den Versuch, und das Resultat ist, daß er für eine beschränkte Periode ein Viertel mehr Werk verrichtet und im 37. Jahre statt im 50. stirbt.“⁹¹

⁹¹ Dr. Richardson, l.c.

10.4. Day and Night Work. Relais System

The prolongation of the working-day is an inherent drive of capital even if there is no constant capital. However it gains special urgency when there is a considerable amount of constant capital: then the constant capital must be used day and night.

263:2-264:1 Constant capital, the means of production, considered from the standpoint of the creation of surplus-value, only exist to absorb labor, and with every drop of labor a proportional quantity of surplus-labor. While they fail to do this, their mere existence causes a relative loss to the capitalist, for they represent during the time they lie fallow, a useless advance of capital. And this loss becomes positive and absolute as soon as the intermission of their employment necessitates additional outlay at the recommencement of work. The prolongation of the working-day beyond the limits of the natural day, into the night, only acts as a palliative. It quenches only in a slight degree the vampire thirst for the living blood of labor.

These two reasons (constant capital cannot stand idle, and utmost prolongation of the working-day) are powerful enough that night shifts are introduced:

To appropriate labor during all the 24 hours of the day is, therefore, the inherent tendency of capitalist production. But as it is physically impossible to exploit the same individual labor-power constantly during the night as well as the day, to overcome this physical hindrance, an alternation becomes necessary between the workpeople whose powers are exhausted by day, and those who are used up by night. This alternation may

271:2/o Das konstante Kapital, die Produktionsmittel, sind, vom Standpunkt des Verwertungsprozesses betrachtet, nur da, um Arbeit und mit jedem Tropfen Arbeit ein proportionelles Quantum Mehrarbeit einzusaugen. Soweit sie das nicht tun, bildet ihre bloße Existenz einen negativen Verlust für den Kapitalisten, denn sie repräsentieren während der Zeit, wo sie brachliegen, nutzlosen Kapitalvorschuß, und dieser Verlust wird positiv, sobald die Unterbrechung zusätzliche Auslagen nötig macht für den Wiederbeginn des Werks. Die Verlängerung des Arbeitstags über die Grenzen des natürlichen Tags in die Nacht hinein wirkt nur als Palliativ, stillt nur annähernd den Vampyrthirst nach lebendigem Arbeitsblut.

Arbeit während aller 24 Stunden des Tags anzueignen ist daher der immanente Trieb der kapitalistischen Produktion. Da dies aber physisch unmöglich, würden dieselben Arbeitskräfte Tag und Nacht fortwährend ausgesaugt, so bedarf es, zur Überwindung des physischen Hindernisses, der Abwechslung zwischen den bei Tag und Nacht verspeisten Arbeitskräften, eine Abwechslung, die verschiedene Methoden zuläßt, z.B.

be effected in various ways; e.g., it may be so arranged that part of the workers are one week employed on day-work, the next week on night-work. It is well known that this relay system, this alternation of two sets of workers, held full sway in the full-blooded youth-time of the English cotton manufacture, and that at the present time it still flourishes, among others, in the cotton spinning of the Moscow district. This 24 hours' process of production exists today as a system in many of the branches of industry of Great Britain that are still "free," in the blast-furnaces, forges, plate-rolling mills, and other metallurgical establishments in England, Wales, and Scotland. The working time here includes, besides the 24 hours of the 6 working-days, a great part also of the 24 hours of Sunday. The workers consist of men and women, adults and children of both sexes. The ages of the children and young persons run through all intermediate grades, from 8 (in some cases from 6) to 18.⁹² In some branches of industry, the girls and women work through the night together with the males.⁹³

⁹² Children's Employment Commission. Third Report. London, 1864, pp. iv., v., vi.

⁹³ "Both in Staffordshire and in South Wales young girls and women are employed on the pit banks and on the coke heaps, not only by day but also by night. This practice has been often noticed in Reports presented to Parliament, as being attended with great and notorious evils. These females employed with the men, hardly distinguished from them in their dress, and begrimed with dirt and smoke, are exposed to the deterioration of character, arising from the loss of self-respect, which can hardly fail to follow from their unfeminine occupation." (l.c., 194, p. xxvi. Cf. Fourth Report (1865), 61, p. xiii.) It is the same in glass-works.

so geordnet sein kann, daß ein Teil des Arbeiterpersonals eine Woche Tagdienst, Nachtdienst die andre Woche versieht usw. Man weiß, daß dies Ablösungssystem, diese Wechselwirtschaft, in der vollblütigen Jugendperiode der englischen Baumwollindustrie usw. vorherrschte und u.a. gegenwärtig in den Baumwollspinnereien des Gouvernements Moskau blüht. Als System existiert dieser 24stündige Produktionsprozeß heute noch in vielen bis jetzt „freien“ Industriezweigen Großbritanniens, u.a. in den Hochöfen, Schmieden, Walzwerken und andren Metallmanufakturen von England, Wales und Schottland. Der Arbeitsprozeß umfaßt hier außer den 24 Stunden der 6 Werkeltage grobenteils auch die 24 Stunden des Sonntags. Die Arbeiter bestehen aus Männern und Weibern, Erwachsenen und Kindern beiderlei Geschlechts. Das Alter der Kinder und jungen Personen durchläuft alle Zwischenstufen vom 8. (in einigen Fällen vom 6.) bis zum 18. Jahr.⁹² In einigen Branchen arbeiten auch die Mädchen und Weiber des Nachts zusammen mit dem männlichen Personal.⁹³

⁹² „Children's Employment Commission. Third Report“, Lond. 1864, p. IV, V, VI.

⁹³ „In Staffordshire wie auch in Süd-Wales werden junge Mädchen und Frauen in Kohlengruben und auf Kokshalden beschäftigt, nicht nur bei Tag, sondern auch bei Nacht. In den dem Parlament erstatteten Berichten wurde dies oft erwähnt als eine Praxis, die mit großen und offenkundigen Übeln verbunden sei. Diese mit den Männern zusammenarbeitenden und sich von ihnen in der Kleidung kaum unterscheidenden, mit Schmutz und Rauch beschmierten Frauen sind der charakterlichen Entartung ausgesetzt, weil sie ihre Selbstachtung verlieren, was die fast unvermeidliche Folge ihrer unweiblichen Beschäftigung ist.“ (l.c. 194, p. XXVI. Vgl. „Fourth Report“ (1865) 61, p. XIII.) Ebenso in Glasfabriken.

Shift work not only detrimental to the health of the workers, but it also allows the capitalists to cheat on the restrictions of the working-day by forcing workers to work double shifts if the worker of the next shift does not come in.

264:2/o Placing on one side the generally

272:1/o Von den allgemeinen schädlichen

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injurious influence of night-labor,⁹⁴ the duration of the process of production, unbroken during the 24 hours, offers very welcome opportunities of exceeding the limits of the normal working-day.

↓ The general detrimental effects of night work are discussed in the footnote.

⁹⁴ A steel manufacturer who employs children in night-labor remarked: "It seems but natural that boys who work at night cannot sleep and get proper rest by day, but will be running about." (l.c., Fourth Report, 63, p. xiii.) On the importance of sunlight for the maintenance and growth of the body, a physician writes: "Light also acts upon the tissues of the body directly in hardening them and supporting their elasticity. The muscles of animals, when they are deprived of a proper amount of light, become soft and inelastic, the nervous power loses its tone from defective stimulation, and the elaboration of all growth seems to be perverted . . . In the case of children, constant access to plenty of light during the day, and to the direct rays of the sun for a part of it, is most essential to health. Light assists in the elaboration of good plastic blood, and hardens the fibre after it has been laid down. It also acts as a stimulus upon the organs of sense, and by this means brings about more activity in the various cerebral functions." Dr. W. Strange, Senior Physician of the Worcester General Hospital, from whose work on "Health" (1864) this passage is taken, writes in a letter to Mr. White, one of the commissioners: "I have had opportunities formerly, when in Lancashire, of observing the effects of nightwork upon children, and I have no hesitation in saying, contrary to what some employers were fond of asserting, those children who were subjected to it soon suffered in their health." (l.c., 284., p. 55.) That such a question should furnish the material of serious controversy, shows plainly how capitalist production acts on the brain-functions of capitalists and their retainers.

Wirkungen der Nachtarbeit abgesehen,⁹⁴ bietet die ununterbrochene, vierundzwanzigstündige Dauer des Produktionsprozesses höchst willkommene Gelegenheit, die Grenze des nominellen Arbeitstags zu überschreiten.

⁹⁴ „Es scheint natürlich“, bemerkte ein Stahlfabrikant, der Kinder zur Nachtarbeit verwendet, „daß die Jungen, die nachts arbeiten, bei Tag nicht schlafen und keine ordentliche Ruhe finden können, sondern rastlos am nächsten Tag herumlaufen.“ (l.c., „Fourth Rep.“, 63, p. XIII.) Über die Wichtigkeit des Sonnenlichts zur Erhaltung und Entwicklung des Körpers bemerkt ein Arzt u.a.: „Licht wirkt auch direkt auf die Gewebe des Leibes, denen es Härte und Elastizität gibt. Die Muskeln von Tieren, denen man das normale Quantum Licht vorenthält, werden schwammig und unelastisch, die Nervenkraft verliert ihren Ton durch Mangel an Stimulierung, und die Ausarbeitung von allem, was im Wachstum begriffen ist, wird verkümmert . . . Im Fall von Kindern ist beständiger Zutritt von reichlichem Tageslicht und der direkten Sonnenstrahlen während eines Teils des Tags durchaus wesentlich für die Gesundheit. Licht hilft die Speisen zu gutem plastischen Blut verarbeiten und härtet die Faser, nachdem sie gebildet ist. Es wirkt ebenso als Reizmittel auf die Sehorgane und ruft hierdurch größere Tätigkeit in verschiedenen Hirnfunktionen hervor.“ Herr W. Strange, Oberarzt des Worcester „General Hospital“, aus dessen Schrift über „Gesundheit“ (1864) diese Stelle entlehnt ist, schreibt in einem Brief an einen der Untersuchungskommissäre, Herrn White: „Ich habe früher in Lancashire Gelegenheit gehabt, die Wirkungen der Nachtarbeit auf Fabrikkinder zu beobachten, und im Widerspruch zu der beliebten Versicherung einiger Arbeitgeber erkläre ich mit Entschiedenheit, daß die Gesundheit der Kinder bald davon litt.“ „Children's Employment Commission. Fourth Report“, 284, p. 55.) Daß solche Dinge überhaupt den Gegenstand ernsthafter Kontroversen bilden, zeigt am besten, wie die kapitalistische Produktion auf die „Gehirnfunktionen“ der Kapitalisten und ihrer retainers wirkt.

↑ It should be self-understood that day-and-night work is bad for your health—this is presumably why Marx put this discussion into a footnote.

↓ But shift work also makes it easy for the capitalists to circumvent the regulations re-

garding work hours:

E.g., in the branches of industry already mentioned, which are of an exceedingly fatiguing nature; the official working-day means for each worker usually 12 hours by night or day. But the over-work beyond this amount is in many cases, to use the words of the English official report, “truly fearful.”⁹⁵

⁹⁵ l.c., 57, p. xii.

265:1 “It is impossible,” the report continues, “for any mind to realise the amount of work described in the following passages as being performed by boys of from 9 to 12 years of age ... without coming irresistibly to the conclusion that such abuses of the power of parents and of employers can no longer be allowed to exist.”⁹⁶

⁹⁶ l.c., Fourth Report (1865). 58. p. xii.

↑ Here again a critique of the parents as well as the employers, similar to 253:8–254:2.

265:2 “The practice of boys working at all by day and night turns either in the usual course of things, or at pressing times, seems inevitably to open the door to their not unfrequently working unduly long hours. These hours are, indeed, in some cases, not only cruelly but even incredibly long for children. Amongst a number of boys it will, of course, not unfrequently happen that one or more are from some cause absent. When this happens, their place is made up by one or more boys, who work in the other turn. That this is a well understood system is plain ... from the answer of the manager of some large rolling-mills, who, when I asked him how the place of the boys absent from their turn was made up, ‘I daresay, sir, you know that as well as I do,’ and admitted the fact.”⁹⁷

⁹⁷ l.c.

265:3 “At a rolling-mill where the proper hours were from 6 a.m. to 5 1/2 p.m., a boy worked about four nights every week till 8 1/2 p.m. at least ... and this for six months. Another, at 9 years old, sometimes made three 12-hour shifts running, and, when 10, has made two days and two nights running.” A third, “now 10 ... worked from 6 a.m. till 12 p.m. three nights, and till 9 p.m. the other nights.” “Another, now 13, ... worked from

Z.B. in den vorhin erwähnten, sehr anstrengenden Industriezweigen beträgt der offizielle Arbeitstag für jeden Arbeiter meist 12 Stunden, Nachtstunden oder Tagstunden. Aber die Überarbeit über diese Grenze hinaus ist in vielen Fällen, um die Worte des englischen offiziellen Berichts zu brauchen, „wirklich schauerhaft“ („truly fearful“).⁹⁵

⁹⁵ l.c. 57, p. XII.

273:1 „Kein menschliches Gemüt“, heißt es, „kann die Arbeitsmasse, die nach den Zeugnisaussagen durch Knaben von 9 bis 12 Jahren verrichtet wird, überdenken, ohne unwiderstehlich zum Schluß zu kommen, daß dieser Machtmißbrauch der Eltern und Arbeitgeber nicht länger erlaubt werden darf.“⁹⁶

⁹⁶ l.c. („4th Rep.“, 1865), 58, p. XII.

273:2 „Die Methode, Knaben überhaupt abwechselnd Tag und Nacht arbeiten zu lassen, führt, sowohl während des Geschäftsdranges als während des gewöhnlichen Verlaufs der Dinge, zu schmälicher Verlängerung des Arbeitstags. Diese Verlängerung ist in vielen Fällen nicht nur grausam, sondern gradezu unglaublich. Es kann nicht fehlen, daß aus einer oder der andren Ursache ein Ablösungsknabe hier und da wegbleibt. Einer oder mehrere der anwesenden Knaben, die ihren Arbeitstag bereits vollbracht, müssen dann den Ausfall gutmachen. Dies System ist so allgemein bekannt, daß der Manager eines Walzwerks auf meine Frage, wie die Stelle der abwesenden Ersatzknaben ausgefüllt würde, antwortete: Ich weiß wohl, daß Sie das ebenso gut wissen als ich, und er nahm keinen Anstand, die Tatsache zu gestehn.“⁹⁷

⁹⁷ l.c.

273:3/o „In einem Walzwerke, wo der nominelle Arbeitstag von 6 Uhr morgens bis 5 1/2 Uhr abends dauerte, arbeitete ein Junge 4 Nächte jede Woche bis mindestens 8 1/2 Uhr abends des nächstens Tags ... und dies während 6 Monaten.“ „Ein anderer arbeitete im Alter von 9 Jahren manchmal drei zwölfstündige Arbeitsschichten nacheinander und im Alter von 10 Jahren zwei Tage und zwei Nächte nacheinander.“ „Ein dritter, jetzt 10 Jahre, ar-

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6 p.m. till 12 noon next day, for a week together, and sometimes for three shifts together, e.g., from Monday morning till Tuesday night." "Another, now 12, has worked in an iron foundry at Stavely from 6 a.m. till 12 p.m. for a fortnight on end; could not do it any more." "George Allinsworth, age 9, came here as cellar-boy last Friday; next morning we had to begin at 3, so I stopped here all night. Live five miles off. Slept on the floor of the furnace, over head, with an apron under me, and a bit of a jacket over me. The two other days I have been here at 6 a.m. Aye! it is hot in here. Before I came here I was nearly a year at the same work at some works in the country. Began there, too, at 3 on Saturday morning—always did, but was very gain [near] home, and could sleep at home. Other days I began at 6 in the morning, and gi'en over at 6 or 7 in the evening," etc.⁹⁸

beitete von morgens 6 Uhr bis 12 Uhr in die Nacht drei Nächte durch und bis 9 Uhr abends während der andren Nächte." „Ein vierter, jetzt 13 Jahre, arbeitete von 6 Uhr nachmittags bis den andren Tag 12 Uhr mittags während einer ganzen Woche, und manchmal drei Schichten nacheinander, z.B. von Montag morgen bis Dienstag nacht.“ „Ein fünfter, jetzt 12 Jahre, arbeitete in einer Eisengießerei zu Stavely von 6 Uhr morgens bis 12 Uhr nachts während 14 Tagen, ist unfähig, es länger zu tun.“ George Allinsworth, neunjährig: „Ich kam hierhin letzten Freitag. Nächsten Tag hatten wir um 3 Uhr morgens anzufangen. Ich blieb daher die ganze Nacht hier. Wohne 5 Meilen von hier. Schief auf der Flur mit einem Schurzfell unter mir und einer kleinen Jacke über mir. Die zwei andren Tage war ich hier um 6 Uhr morgens. Ja! dies ist ein heißer Platz! Bevor ich herkam, arbeitete ich ebenfalls während eines ganzen Jahres in einem Hochofen. Es war ein sehr großes Werk auf dem Lande. Begann auch samstags morgens um 3 Uhr, aber ich konnte wenigstens nach Hause schlafen gehn, weil es nah war. An andren Tagen fing ich 6 Uhr morgens an und endete 6 oder 7 Uhr abends“ usw.⁹⁸

↓ Footnote 98: if the children must work this long, it is no wonder they have very little school knowledge:

⁹⁸ I.c., p. xiii. Naturally, the degree of culture of these "labor-powers" cannot be any higher than that manifested in the following dialogues with one of the commissioners: Jeremiah Haynes, age 12—"Four times four is 8; 4 fours are 16. A king is him that has all the money and gold. We have a king (told it is a Queen), they call her the Princess Alexandra. Told that she married the Queen's son. The Queen's son is the Princess Alexandra. A Princess is a man." William Turner, age 12—"Don't live in England. Think it is a country, but didn't know before." John Morris, age 14—"Have heard say that God made the world, and that all the people was drowned but one, heard say that one was a little bird." William Smith, age 15—"God made man, man made woman." Edward Taylor, age 15—"Do not know of London." Henry Matthewman, age 17—"Had been to chapel, but missed a good many times lately. One name that they preached about was Jesus Christ, but I cannot say any others, and I cannot tell anything about

⁹⁸ I.c. p. XIII. Die Bildungsstufe dieser „Arbeitskräfte“ muß natürlich so sein, wie sie in folgenden Dialogen mit einem der Untersuchungskommissäre erscheint! Jeremiah Haynes, 12 Jahre alt: „... Viermal vier ist acht, aber vier Vierer (4 fours) sind 16 ... Ein König ist ihm, der alles Geld und Gold hat. (A king is him that has all the money and gold.) Wir haben einen König, man sagt, er ist eine Königin, sie nennen sie Prinzessin Alexandra. Man sagt, sie heiratete der Königin Sohn. Eine Prinzessin ist ein Mann.“ Wm. Turner, zwölfjährig: „Lebe nicht in England. Denke, es gibt solch ein Land, wußte nichts davon zuvor.“ John Morris, vierzehnjährig: „Habe sagen hören, daß Gott die Welt gemacht und daß alles Volk ersoff, außer einem; habe gehört, daß der eine ein kleiner Vogel war.“ William Smith, fünfzehnjährig: „Gott machte den Mann; der Mann machte das Weib.“ Edward Taylor, fünfzehnjährig: „Weiß nichts von London.“ Henry Matthewman, siebzehnjährig: „Geh' manchmal in die Kirche ... Ein Name, worüber sie

him. He was not killed, but died like other people. He was not the same as other people in some ways, because he was religious in some ways and others isn't." (l.c., p. xv.) "The devil is a good person. I don't know where he lives." "Christ was a wicked man." "This girl spelt God as dog, and did not know the name of the queen." ("Ch. Employment Comm. V. Report, 1866 " p. 55, n. 278.)

predigen, war ein gewisser Jesus Christ, aber ich kann keine andren Namen nennen, und ich kann auch nichts über ihn sagen. Er wurde nicht gemordet, sondern starb wie andre Leute. Er war nicht so wie andre Leute in gewisser Art, weil er religiös war in gewisser Art, und andre ist es nicht. (He was not the same as other people in some ways, because he was religious in some ways, and others isn't.)" (l.c. 74, p. XV.) „Der Teufel ist eine gute Person. Ich weiß nicht, wo er lebt. Christus war ein schlechter Kerl.“ („The devil is a good person. I don't know where he lives. Christ was a wicked man.") „Dies Mädchen (10 Jahre) buchstabiert God Dog und kannte den Namen der Königin nicht.“ „Ch. Empl. Comm. V. Rep.“, 1866, p. 55, n. 278.)

↓ The rest of the footnote discusses shift work in the paper mills:

^{98 ctd} The same system obtains in the glass and paper works as in the metallurgical, already cited. In the paper factories, where the paper is made by machinery, night-work is the rule for all processes, except rag-sorting. In some cases night-work, by relays, is carried on incessantly throug the whole week, usually from Sunday night until midnight of the following Saturday. Those who are on day-work work 5 days of 12, and 1 day of 18 hours; those on night-work 5 nights of 12, and 1 of 6 hours in each week. In other cases each set works 24 hours consecutively on alternate days, one set working 6 hours on Monday, and 18 on Saturday to make up the 24 hours. In other cases an intermediate system prevails, by which all employed on the paper-making machinery work 15 or 16 hours every day in the week. This system, says Commissioner Lord, "seems to combine all the evils of both the 12 hours' and the 24 hours' relays." Children under 13, young persons under 18, and women, work under this night system. Sometimes under the 12 hours' system they are obliged, on account of the non-appearance of those that oupt to relieve them, to work a double turn of 24 hours. The evidence proves that boys and girls very often work overtime, which, not unfrequently, extends to 24 or even 36 hours of uninterrupted toil. In the continuous and unvarying process of glazing are found girls of 12 who work the whole month 14 hours a day, "without any regular relief or cessation beyond 2 or, at most, 3 breaks of half an hour each for meals." In some mills, where regular night-work has been entirely given up, over-work goes on to a terrible extent, "and that often in the dirtiest, and in

^{98 ctd} Dasselbe System, das in den erwähnten Metallmanufakturen, herrscht in den Glas- und Papierfabriken. In den Papierfabriken, wo das Papier mit Maschinen gemacht wird, ist Nachtarbeit die Regel für alle Prozesse außer dem der Lumpensortierung. In einigen Fällen wird die Nachtarbeit, vermittelt Ablösungen, unaufhörlich die ganz Woche durch fortgesetzt, gewöhnlich von Sonntag nacht bis 12 Uhr nachts des folgenden Samstags. Die Mannschaft, die sich an der Tagesreihe befindet, arbeitet 5 Tage von 12 und einen von 18 Stunden, und die der Nachtreihe 5 Nächte von 12 Stunden und eine von 6 Stunden, in jeder Woche. In andren Fällen arbeitet jede Reihe 24 Stunden, die eine nach der andren, an Wechseltagen. Eine Reihe arbeitet 6 Stunden am Montag und 18 am Samstag, um 24 Stunden vollzumachen. In andren Fällen ist ein Zwischensystem eingeführt, worin alle an der Papiermacher-Maschinerie Angestellten jeden Tag in der Woche 15–16 Stunden arbeiten. Dies System, sagt Untersuchungskommissär Lord, scheint alle Übel der Zwölfstunden- und Vierundzwanzigstunden-Ablösung zu vereinen. Kinder unter 13 Jahren, junge Personen unter 18 Jahren und Weiber arbeiten unter diesem Nachtsystem. Manchmal, in dem Zwölfstundensystem, mußten sie, wegen Ausbleibens der Ablöser, die doppelte Reihe von 24 Stunden arbeiten. Zeugenaussagen beweisen, daß Knaben und Mädchen sehr oft Überzeit arbeiten, die sich nicht selten zu 24, ja 36 Stunden ununterbrochener Arbeit ausdehnt. In dem „kontinuierlichen und unveränderlichen“ Prozeß der Glasierräume findet man Mädchen von 12 Jahren, die den ganzen

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the hottest, and in the most monotonous of the various processes.” (“Ch. Employment Comm. Report IV., 1865,” p. xxxviii, and xxxix.)

Monat durch täglich 14 Stunden arbeiten, „ohne irgendeine regelmäßige Erholung oder Unterbrechung außer zwei, höchstens drei halbstündigen Ausfällen für Mahlzeiten“. In einigen Fabriken, wo man die reguläre Nachtarbeit ganz aufgegeben, wird entsetzlich viel Überzeit gearbeitet und „dies häufig in den schmutzigsten, heißesten und monotonsten Prozessen“. „Children’s Employment Commission. Report IV“, 1865, p. XXXVIII and XXXIX.)

Until end of section: Comments of the capitalists themselves about day and night work. Of course, they do not admit the excesses and speak about it only in its normal form, but these interviews show what crimes against these children they are capable of just because of a small increase in profits.

Question 861 *Describe the role of children in the struggle for the working-day.*

266:1 Let us now hear how capital itself regards this 24 hours’ system. The extreme forms of the system, its abuse in the “cruel and incredible” extension of the working-day are naturally passed over in silence. Capital only speaks of the system in its “normal” form.

266:2–267:1 Messrs. Naylor & Vickers, steel manufacturers, who employ between 600 and 700 persons, among whom only 10 per cent are under 18, and of those, only 20 boys under 18 work in night sets, thus express themselves:

↑ Marx begins with the testimony of manufacturers who employ a smaller proportion of children than some of the other testimonies to follow. ↓ Their testimony is self-contradictory at every step.

“The boys do not suffer from the heat. The temperature is probably from 86° to 90° ...

275:1 Laßt uns nun hören, wie das Kapital selbst dies Vierundzwanzigstundensystem auffaßt. Die Übertreibungen des Systems, seinen Mißbrauch zur „grausamen und unglaublichen“ Verlängerung des Arbeitstags, übergeht es natürlich mit Stillschweigen. Es spricht nur von dem System in seiner „normalen“ Form.

275:2–276:0 Die Herren Naylor und Vickers, Stahlfabrikanten, die zwischen 600 und 700 Personen anwenden, und darunter nur 10% unter 18 Jahren, und hiervon wieder nur 20 Knaben zum Nachtpersonal, äußern sich wie folgt:

„Die Knaben leiden durchaus nicht von der Hitze. Die Temperatur ist wahrscheinlich 86° bis 90° ...

↑ They know that the temperature is 86° or more (presumably Fahrenheit), but they say that the kids do not suffer from the heat. ↓ They try to detract from the around-the-clock shifts in the forges by saying that everything else is day-work.

At the forges and in the rollingmills the hands work night and day, in relays, but all the other parts of the work are day-work, i.e., from 6 a.m. to 6 p.m. In the forge the hours are from 12 to 12. Some of the hands always work in the night, without any alternation of day and night work... We do not find any difference in the health of those who work regularly by night and those who

In den Schmiede- und Walzwerken arbeiten die Hände Tag und Nacht ablösungsweise, aber dahingegen ist auch alles andere Werk Tagwerk, von 6 Uhr morgens bis 6 Uhr abends. In der Schmiede wird von 12 Uhr bis 12 Uhr gearbeitet. Einige Hände arbeiten fortwährend des Nachts ohne Wechsel zwischen Tag- und Nachtzeit ... Wir finden nicht, daß Tag- oder Nachtarbeit ir-

work by day, and probably people can sleep better if they have the same period of rest than if it is changed . . . About 20 of the boys under the age of 18 work in the night sets . . . We could not well do without lads under 18 working by night. The objection would be the increase in the cost of production . . . Skilled hands and the heads in every department are difficult to get, but of lads we could get any number . . .

gendeinen Unterschied in der Gesundheit“ (der Herren Naylor und Vickers?) „macht, und wahrscheinlich schlafen Leute besser, wenn sie dieselbe Ruheperiode genießen, als wenn sie wechselt . . . Ungefähr zwanzig Knaben unter 18 Jahren arbeiten mit der Nachtmannschaft . . . Wir könnten’s nicht recht tun (not well do), ohne die Nacharbeit von Jungen unter 18 Jahren. Unser Einwurf ist—die Vermehrung der Produktionskosten. Geschickte Hände und Häupter von Departements sind schwer zu haben, aber Jungens kriegt man, soviel man will . . .

↑ If those boys want to work for them, why should they have any scruples? ↓ They just said that they could not do without the children for cost reasons, but now they turn around and say: since they only have such a small proportion of children in this situation (20 out of 600 employees), the matter of night work is not of much interest to them:

But from the small proportion of boys that we employ, the subject (*i.e.*, of restrictions on night-work) is of little importance or interest to us.”⁹⁹

Natürlich, in Anbetracht der geringen Proportion von Jungen, die wir verwenden, wären Beschränkungen der Nacharbeit von wenig Wichtigkeit oder Interesse für uns.“⁹⁹

⁹⁹ Fourth Report, etc., 1865, 79, p. xvi.

⁹⁹ „Fourth Report etc.“, 1865, 79, p. XVI.

↑ It is little comfort to the 20 children on night shift that 580 other employees of the same company are not in this situation. ↓ However the absolute numbers are much bigger in a different company:

267:2–3 Mr. J. Ellis, one of the firm of Messrs. John Brown & Co., steel and iron works, employing about 3,000 men and boys, part of whose operations, namely, iron and heavier steel work, goes on night and day by relays, states “that in the heavier steel work one or two boys are employed to a score or two men.” Their concern employs upwards of 500 boys under 18, of whom about 1/3 or 170 are under the age of 13. With reference to the proposed alteration of the law, Mr. Ellis says:

276:1–2 Herr J. Ellis, von der Firma der Herren John Brown et Co., Stahl- und Eisenwerke, die 3000 Männer und Jungen anwenden, und zwar für [einen] Teil der schweren Stahl- und Eisenarbeit „Tag und Nacht, in Ablösungen“, erklärt, daß in den schweren Stahlwerken ein oder zwei Jungen auf zwei Männer kommen. Ihr Geschäft zählt 500 Jungen unter 18 Jahren und davon ungefähr 1/3, oder 170, unter 13 Jahren. Mit Bezug auf die vorgeschlagene Gesetzänderung meint Herr Ellis:

“I do not think it would be very objectionable to require that no person under the age of 18 should work more than 12 hours in the 24. But we do not think that any line could be drawn over the age of 12, at which boys could be dispensed with for night-work. But we would sooner be prevented from employing boys under the age of 13, or even so high as 14, at all, than not be allowed to employ boys that we do have at night. Those boys who work in the day sets must take their turn in the night

„Ich glaube nicht, daß es sehr tadelhaft (very objectionable) wäre, keine Person unter 18 Jahren über 12 Stunden aus den 24 arbeiten zu lassen. Aber ich glaube nicht, daß man irgendeine Linie ziehen kann für die Entbehrlichkeit von Jungen über 12 Jahren für die Nacharbeit. Wir würden sogar eher ein Gesetz annehmen, überhaupt keine Jungen unter 13 Jahren oder selbst unter 15 Jahren zu verwenden, als ein Verbot, die Jungen, die wir einmal haben, während der Nacht zu brauchen. Die Jun-

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sets also, because the men could not work in the night sets only; it would ruin their health ... We think, however, that night-work in alternate weeks is no harm.

267:4–6 (Messrs. Naylor & Vickers, on the other hand, in conformity with the interest of their business, considered that periodically changed night-labor might possibly do more harm than continual night-labor.)

We find the men who do it, as well as the others who do other work only by day ... Our objections to not allowing boys under 18 to work at night, would be on account of the increase of expense, but this is the only reason. (What cynical naïveté!) We think that the increase would be more than the trade, with due regard to its being successfully carried out, could fairly bear. (What mealy-mouthed phraseology!) labor is scarce here, and might fall short if there were such a regulation.”

(i.e., Ellis Brown & Co. might fall into the fatal perplexity of being obliged to pay labor-power its full value.)¹⁰⁰

¹⁰⁰ l.c., 80. p. xvi.

268:1 The “Cyclops Steel and Iron Works,” of Messrs. Cammell & Co., are concocted on the same large scale as those of the above-mentioned John Brown & Co. The managing director had handed in his evidence to the Government Commissioner, Mr. White, in writing. Later he found it convenient to suppress the MS. when it had been returned to him for revision. Mr. White, however, has a good memory. He remembered quite clearly that for the Messrs. Cyclops the forbidding of the night-labor of children and young persons “would be impossible, it would be tantamount to stopping their works,” and yet their business employs little more than 6% of boys under 18, and

gen, die in der Tagesreihe, müssen wechselweise auch in der Nachtreihe arbeiten, weil die Männer nicht unaufhörlich Nachtarbeit verrichten können; es würde ihre Gesundheit ruinieren. Wir glauben jedoch, daß Nachtarbeit, wenn die Woche dafür wechselt, keinen Schaden tut.“

276:3–5 (Die Herren Naylor und Vickers glaubten, übereinstimmend mit dem Besten ihres Geschäfts, umgekehrt, daß statt der fortwährenden grade die periodisch wechselnde Nachtarbeit möglicherweise Schaden anrichtet.)

„Wir finden die Leute, die die alternierende Nachtarbeit verrichten, grade so gesund als die, die nur am Tage arbeiten ... Unsre Einwürfe gegen die Nichtanwendung von Jungen unter 18 Jahren zur Nachtarbeit würden gemacht werden von wegen Vermehrung der Auslage, aber dies ist auch der einzige Grund.“ (Wie zynisch naïv!) „Wir glauben, daß diese Vermehrung größer wäre, als das Geschäft (the trade) mit schuldiger Rücksicht auf seine erfolgreiche Ausführung billigerweise tragen könnte. (As the trade with due regard to etc. could fairly bear!)“ (Welche breimäulige Phraseologie!) „Arbeit ist hier rar und könnte unzureichend werden unter einer solchen Regulation.“

(d.h., Ellis, Brown et Co. könnten in die fatale Verlegenheit kommen, den Wert der Arbeitskraft voll zahlen zu müssen).¹⁰⁰

¹⁰⁰ l.c. 80, p. XVI, XVII.

276:6/o Die „Cyklops Stahl- und Eisenwerke“ der Herren Cammell et Co. werden auf derselben großen Stufenleiter ausgeführt wie die des besagten John Brown et Co. Der geschäftsführende Direktor hatte dem Regierungskommissär White seine Zeugenaussage schriftlich eingehändigt, fand es aber später passend, das zur Revision ihm wieder zurückgestellte Manuskript zu unterschlagen. Jedoch Herr White hat ein nachhaltiges Gedächtnis. Er erinnert sich ganz genau, daß für diese Herrn Zyklopen das Verbot der Nachtarbeit von Kindern und jungen Personen „ein Ding der Unmöglichkeit; es wäre dasselbe, als setzte man ihre Werke still“, und dennoch zählt ihr Geschäft

less than 1% under 13.¹⁰¹

¹⁰¹ l.c., 82. p. xvii.

268:2–269:1 On the same subject Mr. E. F. Sanderson, of the firm of Sanderson, Bros., & Co., steel rolling-mills and forges, Attercliffe, says:

“Great difficulty would be caused by preventing boys under 18 from working at night. The chief would be the increase of cost from employing men instead of boys. I cannot say what this would be, but probably it would not be enough to enable the manufacturers to raise the price of steel, and consequently it would fall on them, as of course the men (what queer-headed folk!) would refuse to pay it.”

Mr. Sanderson does not know how much he pays the children, but

“perhaps the younger boys get from 4s. to 5s. a week . . . The boys’ work is of a kind for which the strength of the boys is generally (‘generally,’ of course not always) quite sufficient, and consequently there would be no gain in the greater strength of the men to counterbalance the loss, or it would be only in the few cases in which the metal is heavy. The men would not like so well not to have boys under them, as men would be less obedient. Besides, boys must begin young to learn the trade. Leaving day-work alone open to boys would not answer this purpose.”

And why not? Why could not boys learn their handicraft in the day-time? Your reason?

“Owing to the men working-days and nights in alternate weeks, the men would be separated half the time from their boys, and would lose half the profit which they make from them. The training which they give to an apprentice is considered as part of the return for the boys’ labor, and thus enables the man to get it at a cheaper rate. Each man would want half of this profit.”

wenig mehr als 6% Jungen unter 18 und nur 1% unter 13 Jahren!¹⁰¹

¹⁰¹ l.c. 82, p. XVII.

277:1–278:1 Über denselben Gegenstand erklärt Herr E. F. Sanderson, von der Firma Sanderson, Bros. et Co., Stahl-, Walz- und Schmiedewerke, in Attercliffe:

„Große Schwierigkeiten würden entspringen aus dem Verbot, Jungen unter 18 Jahren des Nachts arbeiten zu lassen, die Hauptschwierigkeit aus der Vermehrung der Kosten, welche ein Ersatz der Knabenarbeit durch Männerarbeit notwendig nach sich zöge. Wieviel das betragen würde, kann ich nicht sagen, aber wahrscheinlich wäre es nicht so viel, daß der Fabrikant den Stahlpreis erhöhen könnte, und folglich fiel der Verlust auf ihn, da die Männer“ (welch querköpfig Volk!) „[sich] natürlich weigern würden, ihn zu tragen.“

Herr Sanderson weiß nicht, wieviel er den Kindern zahlt, aber

„vielleicht beträgt es 4 bis 5 sh. per Kopf die Woche . . . Die Knabenarbeit ist von einer Art, wofür im allgemeinen“ („generally“, natürlich nicht immer „im Besondern“) „die Kraft der Jungen grade ausreicht, und folglich würde kein Gewinn aus der größten Kraft der Männer fließen, um den Verlust zu kompensieren, oder doch nur in den wenigen Fällen, wo das Metall sehr schwer ist. Die Männer würden es auch minder lieben, keine Knaben unter sich zu haben, da Männer minder gehorsam sind. Außerdem müssen die Jungen jung anfangen, um das Geschäft zu lernen. Die Beschränkung der Jungen auf bloße Tagarbeit würde diesen Zweck nicht erfüllen.“

Und warum nicht? Warum können Jungen ihr Handwerk nicht bei Tag lernen? Deinen Grund?

„Weil dadurch die Männer, die in Wechselwochen bald den Tag, bald die Nacht arbeiten, von den Jungen ihrer Reihe während derselben Zeit getrennt, halb den Profit verlieren würden, den sie aus ihnen herausschlagen. Die Anleitung, die sie den Jungen geben, wird nämlich als Teil des Arbeitslohnes dieser Jungen berechnet und befähigt die Männer daher, die Jungenarbeit wohlfeiler zu bekommen. Jeder Mann würde seinen halben Profit verlieren.“

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In other words, Messrs. Sanderson would have to pay part of the wages of the adult men out of their own pockets instead of by the night-work of the boys. Messrs. Sanderson's profit would thus fall to some extent, and this is the good Sandersonian reason why boys cannot learn their handicraft in the day.¹⁰² In addition to this, it would throw night-labor on those who worked instead of the boys, which they would not be able to stand. The difficulties in fact would be so great that they would very likely lead to the giving up of night-work altogether, and "as far as the work itself is concerned," says E. F. Sanderson, "this would suit as well, but—" "But Messrs. Sanderson have something else to make besides steel. Steel-making is simply a pretext for surplus-value making. The smelting furnaces, rolling-mills, etc., the buildings, machinery, iron, coal, etc., have something more to do than transform themselves into steel. They are there to absorb surplus-labor, and naturally absorb more in 24 hours than in 12. In fact they give, by grace of God and law, the Sandersons a cheque on the working time of a certain number of hands for all the 24 hours of the day, and they lose their character as capital, are therefore a pure loss for the Sandersons, as soon as their function of absorbing labor is interrupted.

In andren Worten, die Herren Sanderson müßten einen Teil des Arbeitslohnes der erwachsenen Männer aus eigener Tasche statt mit der Nachtarbeit der Jungen zahlen. Der Profit der Herren Sanderson würde bei dieser Gelegenheit etwas fallen, und dies ist der Sandersonsche gute Grund, warum Jungen ihr Handwerk nicht bei Tag lernen können.¹⁰² Außerdem würde dies reguläre Nachtarbeit auf die Männer werfen, die nun von den Jungen abgelöst werden, und sie würden das nicht aushalten. Kurz und gut, die Schwierigkeiten wären so groß, daß sie wahrscheinlich zur gänzlichen Unterdrückung der Nachtarbeit führen würden. „Was die Produktion von Stahl selbst angeht“, sagt E. F. Sanderson, „würde es nicht den geringsten Unterschied machen, aber!“ Aber die Herren Sanderson haben mehr zu tun, als Stahl zu machen. Die Stahlmacherei ist bloßer Vorwand der Plusmacherei. Die Schmelzöfen, Walzwerke usw., die Baulichkeiten, die Maschinerie, das Eisen, die Kohle usw. haben mehr zu tun, als sich in Stahl zu verwandeln. Sie sind da, um Mehrarbeit einzusaugen, und saugen natürlich mehr in 24 Stunden als in 12. Sie geben in der Tat von Gottes und Rechts wegen den Sandersons eine Anweisung auf die Arbeitszeit einer gewissen Anzahl von Händen für volle 24 Stunden des Tags und verlieren ihren Kapitalcharakter, sind daher für die Sandersons reiner Verlust, sobald ihre Funktion der Arbeitseinsaugung unterbrochen wird.

“But then there would be the loss from so much expensive machinery, lying idle half the time, and to get through the amount of work which we are able to do on the present system, we should have to double our premises and plant, which would double the outlay.”

„Aber dann wäre da der Verlust an so viel kostspieliger Maschinerie, welche die halbe Zeit brachläge, und für eine solche Produktenmasse, wie wir fähig sind, sie bei dem gegenwärtigen System zu leisten, müßten wir Räumlichkeiten und Maschinenwerke verdoppeln, was die Auslage verdoppeln würde.“

↓ Footnote brings interesting Hegel quote about good reasons:

¹⁰² “In our reflecting and reasoning age a man is not worth much who cannot give a good reason for everything, no matter how bad or how crazy. Everything in the world that has been done wrong has been done wrong for the very best of reasons.” (Hegel, I.c., p. 249)

¹⁰² „In unsrer reflexionsreichen und räsionierenden Zeit muß es einer noch nicht weit gebracht haben, der nicht für alles, auch das Schlechteste und Verkehrteste, einen guten Grund anzugeben weiß. Alles, was in der Welt verdorben worden ist, das ist aus guten Gründen ver-

269:2 But why should these Sandersons pretend to a privilege not enjoyed by the other capitalists who only work during the day, and whose buildings, machinery, raw material, therefore lie "idle" during the night? E. F. Sanderson answers in the name of all the Sandersons:

"It is true that there is this loss from machinery lying idle in those manufactories in which work only goes on by day. But the use of furnaces would involve a further loss in our case. If they were kept up there would be a waste of fuel (instead of, as now, a waste of the living substance of the workers), and if they were not, there would be loss of time in laying the fires and getting the heat up (whilst the loss of sleeping time, even to children of 8 is a gain of working time for the Sanderson tribe), and the furnaces themselves would suffer from the changes of temperature" (whilst those same furnaces suffer nothing from the day and night change of labor).¹⁰³

¹⁰³ I.c., 85, p. xvii. To similar tender scruples of the glass manufacturers that regular meal-times for the children are impossible because as a consequence a certain quantity of heat, radiated by the furnaces, would be "a pure loss" or "wasted," Commissioner White makes answer. His answer is unlike that of Ure, Senior, etc., and their puny German plagiarists à la Roscher who are touched by the "abstinence," "self-denial," "saving," of the capitalists in the expenditure of their gold, and by their Timur-Tamerlanish prodigality of human life! "A certain amount of heat beyond what is usual at present might also be going to waste, if meal-times were secured in these cases, but it seems likely not equal in money-value to the waste of animal power now going on in glass-houses throughout the kingdom from growing boys not having enough quiet time to eat their meals at ease, with a little rest afterwards for digestion." (I.c., p. xiv.) And this in the year of progress 1865! Without considering the expenditure of strength in lifting and carrying, such a child, in the sheds where bottle and flint glass are made, walks during the performance of his work

dorben worden." (Hegel, I.c. p. 249.)

278:2–3 Aber warum beanspruchen gerade diese Sandersons ein Privilegium vor den andren Kapitalisten, die nur bei Tag arbeiten lassen dürfen und deren Baulichkeiten, Maschinerie, Rohmaterial daher bei Nacht „brach“ liegen?

„Es ist wahr“, antwortet E. F. Sanderson im Namen aller Sandersons, „es ist wahr, daß dieser Verlust von brachliegender Maschinerie alle Manufakturen trifft, worin nur bei Tag gearbeitet wird. Aber der Gebrauch der Schmelzöfen würde in unsrem Fall einen Extraverlust verursachen. Hält man sie im Gang, so wird Brennmaterial verwüstet“ (statt daß jetzt das Lebensmaterial der Arbeiter verwüstet wird), „und hält man sie nicht im Gang, so setzt das Zeitverlust im Wiederanlegen des Feuers und zur Gewinnung des nötigen Hitzegrads“ (während der Verlust, selbst Achtjähriger, an Schlafzeit Gewinn von Arbeitszeit für die Sandersonsippe), „und die Öfen selbst würden vom Temperaturwechsel leiden“ (während doch dieselbigen Öfen nichts leiden vom Tag- und Nachtwechsel der Arbeit).¹⁰³

¹⁰³ „Children's Employment Commission. Fourth Report“, 1865, 85, p. XVII. Auf ähnliches zartes Bedenken des Herrn Glasfabrikanten, daß „regelmäßige Mahlzeiten“ der Kinder unmöglich sind, weil dadurch ein bestimmtes Quantum Hitze, das die Öfen ausstrahlen, „reiner Verlust“ wäre oder „verwüstet“ würde, antwortet Untersuchungskommissär White, durchaus nicht gleich Ure, Senior etc. und ihren schmalen deutschen Nachkläffern, wie Roscher etc., gerührt von der „Enthaltbarkeit“, „Entsagung“ und „Sparsamkeit“ der Kapitalisten in Verausgabung ihres Geldes und ihrer Timur-Tamerlanschen „Verschwendung“ von Menschenleben: „Ein gewisses Quantum Hitze mag über das jetzige Maß hinaus verwüstet werden infolge von Sicherung regulärer Mahlzeiten, aber selbst in Geldwert ist es nichts, verglichen mit der Verwüstung von Lebenskraft (the waste of animal power), die jetzt dem Königreich daraus erwächst, daß in den Glashütten beschäftigte und im Wachstum begriffene Kinder nicht einmal die Muße finden, ihre Speisen bequem einzunehmen und zu verdauen.“ (I.c. p. XLV.) Und das im „Fortschritts-

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15–20 miles in every 6 hours! And the work of ten lasts 14 or 15 hours! In many of these glass works, as in the Moscow spinning mills, the system of 6 hours' relays is in force. "During the working part of the week six hours is the utmost unbroken period ever attained at any one time for rest, and out of this has to come the time spent in coming and going to and from work, washing, dressing, and meals, leaving a very short period indeed for rest, and none for fresh air and play, unless at the expense of the sleep necessary for young boys, especially at such hot and fatiguing work . . . Even the short sleep is obviously liable to be broken by a boy having to wake himself if it is night, or by the noise, if it is day." Mr. White gives cases where a boy worked 36 consecutive hours; others where boys of 12 drudged on until 2 in the morning, and then slept in the works till 5 a.m. (3 hours!) only to resume their work. "The amount of work," say Tremeneere and Tufnell, who drafted the general report, "done by boys, youths, girls, and women, in the course of their daily or nightly spell of labor, is certainly extraordinary." (l.c., xliii. and xlv.) Meanwhile, late by night, self-denying Mr. Glass-Capital, primed with port-wine, reels out of his club homeward droning out idiotically. "Britons never, never shall be slaves!"

jahr“ 1865! Abgesehn von der Kraftausgabe im Heben und Tragen, marschiert ein solches Kind in den Hütten, die Flaschen und Flintglas machen, während der kontinuierlichen Verrichtung seiner Arbeit, 15 bis 20 (englische) Meilen in 6 Stunden! Und die Arbeit dauert oft 14 bis 15 Stunden! In vielen dieser Glashütten herrscht, wie in den Spinnereien von Moskau, das System sechsstündiger Ablösungen. „Während der Arbeitszeit der Woche sind sechs Stunden die äußerste ununterbrochene Rastperiode, und davon geht ab die Zeit, zur und von der Fabrik zu gehn, Waschen, Kleiden, Speisen, was alles Zeit kostet. So bleibt in der Tat nur die kürzeste Ruhezeit. Keine Zeit für Spiel und frische Luft, außer auf Kosten des Schlafs, so unentbehrlich für Kinder, die in solch heißer Atmosphäre solch anstrengendes Werk verrichten . . . Selbst der kurze Schlaf ist dadurch unterbrochen, daß das Kind sich selbst wecken muß bei Nacht oder bei Tag vom Außenlärm geweckt wird. „Herr White gibt Fälle, wo ein Junge 36 Stunden nacheinander arbeitete; andre, wo Knaben von 12 Jahren bis 2 Uhr nachts schanzten und dann in der Hütte schlafen bis 5 Uhr morgens (3 Stunden!), um das Tagwerk von neuem zu beginnen! „Die Masse Arbeit“, sagen die Redakteure des allgemeinen Berichts, Tremeneere und Tufnell, „die Knaben, Mädchen und Weiber im Lauf ihres täglichen oder nächtlichen Arbeitsbanns (spell of labor) verrichten, ist fabelhaft.“ (l.c. p. XLIII und XLIV.) Unterdes wankt vielleicht eines Abends späte das „entsagungsvolle“ Glaskapital, portweinudlig, aus dem Klub nach Haus, idiotisch vor sich hersummend: „Britons never, never shall be slaves!“

This footnote addresses the waste of human labor against economy of constant capital (already mentioned in footnote 89 to paragraph 261:2–262:3).

Question 862 *Why is the economizing of constant capital so much more important for capital than the waste of human labor?*

10.5. The Struggle around the Normal Working-Day. Compulsory Laws for the Extension of the Working-Day from the Middle of the 14th to the End of the 17th Century

The remainder of chapter Ten, starting with section 10.5, discusses the struggle around the length of the normal working-day. When Marx wrote *Capital*, the working class had just

won an important victory in these struggles.

Originally, these struggles were initiated by the capitalists, not by the working class. The working class movement arose out of self-defense after centuries of sustained attacks by the capitalists. For 450 years, the English laborers had to put up with a steady prolongation of the working-day imposed on them by law.

10.5.a. [What is a working-day?]

Before discussing the struggles themselves, i.e. the historical *processes* through which the length of the working-day was fixed (243:1), Marx develops the mechanisms which determine this length, and their interconnection. (1) Marx starts with an entirely unregulated work day in which the capitalist extends the working hours until he runs into the worker's physiological bounds I. (2) In this process, capital also oversteps other bounds. Not only the "moral" bounds of the working-day, which used to be quite effective in the past, but also the physiological bounds II. (3) The disregard of the physiological bounds II implies that even capital's own long-run economic interest would be served by a shortening of the working-day. (4) However there is no competitive mechanism enforcing this. Why not? Because of rural overpopulation.

After this, as proof that these mechanisms are actually at work, Marx brings empirical evidence showing that at the time when the Factory Acts were passed, labor-power was indeed over-used to the point that it no longer possessed its normal strength.

270/o What is a working-day? What is the length of time during which capital may consume the labor-power whose daily value it has paid for? How far may the working-day be extended beyond the amount of labor-time necessary for the reproduction of labor-power itself?

279/oo „Was ist ein Arbeitstag?“ Wie groß ist die Zeit, während deren das Kapital die Arbeitskraft, deren Tageswert es zahlt, konsumieren darf? Wie weit kann der Arbeitstag verlängert werden über die zur Reproduktion der Arbeitskraft selbst notwendige Arbeitszeit?

↑ The importance of this question, as well as the economic indeterminacy of the length of the working-day, were already emphasized in 241:1–4. The formulation here makes clear that only the surplus part is variable.

↓ The capitalists's point of view:

It has been seen that to these questions capital replies: the working-day contains the full 24 hours, with only the few hours of repose subtracted without which labor-power absolutely refuses its service again.

Auf diese Fragen, man hat es gesehen, antwortet das Kapital: Der Arbeitstag zählt täglich volle 24 Stunden nach Abzug der wenigen Ruhestunden, ohne welche die Arbeitskraft ihren erneuerten Dienst absolut versagt.

↑ This is the maximum possible length in the absence of any regulation of the length of the working-day: the capitalist will simply use the labor-power until the worker is physically unable to continue to work. This was indeed the case in England during the Industrial Revolution. ↓ Marx criticizes this point of view in two ways:

(1) By insisting that everything the worker does must be related to work and not to any other purpose—which does not mean that he or she has to *work* 24 hours a day, the worker also has to recover from work and prepare for work, etc.—capital oversteps the *moral* bounds of the working-day. Marx continues to present the point of view of the capitalist, but now in a polemical, critical style:

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First of all it is self-evident that the laborer is for 24 hours a day nothing else than labor-power, that therefore all his disposable time is by nature and law labor-time, to be devoted to the self-expansion of capital. Time for education, for intellectual development, for the fulfilling of social functions and for social intercourse, for the free-play of his bodily and mental activity, even the rest time of Sunday (and that in a country of Sabbatarians!)¹⁰⁴ are nothing more than dispensable embellishments.

Es versteht sich zunächst von selbst, daß der Arbeiter seinen ganzen Lebenstag durch nichts ist außer Arbeitskraft, daß daher alle seine disponible Zeit von Natur und Rechts wegen Arbeitszeit ist, also der Selbstverwertung des Kapitals angehört. Zeit zu menschlicher Bildung, zu geistiger Entwicklung, zur Erfüllung sozialer Funktionen, zu geselligem Verkehr, zum freien Spiel der physischen und geistigen Lebenskräfte, selbst die Feierzeit des Sonntags—und wäre es im Lande der Sabbatheiligen¹⁰⁴—reiner Firlefanz!

Question 863 *Is it true today that the laborer is for 24 hours a day nothing else than labor-power?* 2012fa, 2009fa, 2007fa, 2007SP, 2004fa, 2003fa.

Footnote 104 illustrates the contradictory and hypocritical character of religious boundaries.

¹⁰⁴ In England even now occasionally in rural districts a laborer is condemned to imprisonment for desecrating the Sabbath, by working in his front garden. The same laborer is punished for breach of contract if he remains away from his metal, paper, or glass works on the Sunday, even if it be from a religious whim. The orthodox Parliament will hear nothing of Sabbath-breaking if it occurs in the process of expanding capital. A memorial (August 1863), in which the London day-laborers in fish and poultry shops asked for the abolition of Sunday labor, states that their work lasts for the first 6 days of the week on an average 15 hours a-day, and on Sunday 8–10 hours. From this same memorial we learn also that the delicate gourmands among the aristocratic hypocrits of Exeter Hall especially encourage this “Sunday labor.” These “holy ones,” so zealous “in attending to their bodily pleasures” show their Christianity by the humility with which they bear the overwork, the privations, and the hunger of others. Here, “gluttony is more pernicious to the stomach of others (the laborers).”

¹⁰⁴ In England z.B. wird immer noch hier und da auf dem Lande ein Arbeiter zu Gefängnisstrafe verurteilt wegen Entheiligung des Sabbats durch Arbeit auf dem Gärtchen vor seinem Hause. Derselbe Arbeiter wird wegen Kontraktbruches bestraft, bleibt er des Sonntags, sei es selbst aus religiösen Mucken, vom Metall-, Papier oder Glaswerk weg. Das orthodoxe Parlament hat kein Ohr für Sabbatentheiligung, wenn sie im „Verwertungsprozeß“ des Kapitals vorgeht. In einer Denkschrift (August 1863), worin die Londoner Tagelöhner in Fisch und Geflügelläden Abschaffung der Sonntagsarbeit verlangen, heißt es, ihre Arbeit daure während der ersten 6 Wochentage durchschnittlich 15 Stunden täglich und am Sonntag 8 bis 10 Stunden. Man entnimmt zugleich aus dieser Denkschrift, daß namentlich die kitzlige Gourmandise der aristokratischen Mucker von Exeter Hall diese „Sonntagsarbeit“ ermutigt. Diese „Heiligen“, so eifrig „in cute curanda“, bewähren ihr Christentum durch die Ergebung, womit sie die Überarbeit, die Entbehnungen und den Hunger dritter Personen ertragen. Obsequium ventris istis (den Arbeitern) perniciosus est.

Question 864 *Are religious boundaries which prohibit Sunday work good or bad for the workers?*

↓ (2) Capital also oversteps the *physiological* bounds II of the working-day.

But in its blind unrestrainable compulsion, its were-wolf hunger for surplus-labor, cap-

Aber in seinem maßlos blinden Trieb, seinem Werwolfs-Heißhunger nach Mehrar-

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ital oversteps not only the moral, but even the merely physical maximum bounds of the working-day. It usurps the time for growth, development, and healthy maintenance of the body. It steals the time required for the consumption of fresh air and sunlight. It higgles over a meal-time, incorporating it where possible with the process of production itself, so that food is given to the laborer as to a mere means of production, as coal is supplied to the boiler, grease and oil to the machinery. It reduces the sound sleep needed for the restoration, reparation, refreshment of the bodily powers to just so many hours of torpor as the revival of an organism, absolutely exhausted, renders essential.

beit, überrennt das Kapital nicht nur die moralischen, sondern auch die rein physischen Maximalschranken des Arbeitstags. Es usurpiert die Zeit für Wachstum, Entwicklung und gesunde Erhaltung des Körpers. Es raubt die Zeit, erheischt zum Verzehr von freier Luft und Sonnenlicht. Es knickert ab an der Mahlzeit und einverleibt sie womöglich dem Produktionsprozeß selbst, so daß dem Arbeiter als bloßem Produktionsmittel Speisen zugesetzt werden wie dem Dampfkessel Kohle und der Maschinerie Talg oder Öl. Den gesunden Schlaf zur Sammlung, Erneuerung und Erfrischung der Lebenskraft reduziert es auf so viel Stunden Erstarrung, als die Wiederbelebung eines absolut erschöpften Organismus unentbehrlich macht.

↓ The capitalist point of view about the length of the working day, against which Marx is polemicizing here, is itself defined by some kind of physiological boundary. This is why this commentary distinguishes between physiological boundary I and physiological boundary II. The difference between the two, according to Marx, is a reversal between what bounds and what is bounded:

It is not the normal maintenance of the labor-power which determines here the limits of the working-day; it is the greatest possible daily expenditure of labor-power, no matter how diseased, compulsory, and painful it may be, which determines the limits of the laborers' period of repose.

Statt daß die normale Erhaltung der Arbeitskraft hier die Schranke des Arbeitstags, bestimmt umgekehrt die größte täglich mögliche Verausgabung der Arbeitskraft, wie krankhaft gewaltsam und peinlich auch immer, die Schranke für die Rastzeit des Arbeiters.

↑ This gives an interesting characterization of the difference between physiological boundaries I and II: that which bounds and that which is bounded is reversed. Instead of being allowed to rest until their body is fully recovered (boundary II), the workers must work until they are no longer able to work, after which they are just given enough rest time until their ability to work returns (boundary I). The capitalist finds out how long he can use the labor-power every day before it absolutely refuses its service because of the exhaustion of the laborer; and only the rest of the day, which is no longer of use for the capitalist, is left to the worker to sleep, etc. This sleep may then be enough to enable the worker to work again long hours before he is exhausted on the next day, but it is not enough to regain full health and strength. ↓ The point of view of the capitalist, if unopposed, leads therefore to action that is destructive of the worker himself:

Capital cares nothing for the length of life of labor-power. All that concerns it is simply and solely the maximum of labor-power, that can be rendered fluent in one working-day. It attains this end by decreasing the length of the laborer's life, as a greedy

Das Kapital fragt nicht nach der Lebensdauer der Arbeitskraft. Was es interessiert, ist einzig und allein das Maximum von Arbeitskraft, das in einem Arbeitstag flüssig gemacht werden kann. Es erreicht dies Ziel durch Verkürzung der Dauer der Arbeits-

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farmer snatches increased produce from the soil by robbing it of its fertility.

kraft, wie ein habgieriger Landwirt gesteigerten Bodenertrag durch Beraubung der Bodenfruchtbarkeit erreicht.

↓ The analogy with the greedy farmer raises the question: won't this overextension of the working-day, the destruction of the labor-power which sustains capital, eventually contradict capital's own interests?

271:1 Capitalist production, which is essentially the production of surplus-value, the absorption of surplus-labor, produces thus, with the extension of the working-day, not only the stunting of human labor-power by robbing it of its normal moral and physical conditions of development and function. It produces also the premature exhaustion and destruction of this labor-power itself.¹⁰⁵ It extends the laborer's time of production during a given period by shortening his overall life-time.

281:1 Die kapitalistische Produktion, die wesentlich Produktion von Mehrwert, Einsaugung von Mehrarbeit ist, produziert also mit der Verlängerung des Arbeitstags nicht nur die Verkümmern der menschlichen Arbeitskraft, welche ihrer normalen moralischen und physischen Entwicklungs- und Betätigungsbedingungen beraubt wird. Sie produziert die vorzeitige Erschöpfung und Abtötung der Arbeitskraft selbst.¹⁰⁵ Sie verlängert die Produktionszeit des Arbeiters während eines gegebenen Terms durch Verkürzung seiner Lebenszeit.

Note the choice of words: Capitalism produces not only the stunting of the "human labor-power" (which is not allowed to develop itself morally, etc., as a human), but also the exhaustion and destruction of the "labor-power *itself*" (not only of its human characteristics but of its mere physiological existence).

¹⁰⁵ "We have given in our previous reports the statements of several experienced manufacturers to the effect that over-hours ... certainly tend prematurely to exhaust the working power of the men." (l.c., 64. p. xiii.)

¹⁰⁵ „In unseren früheren Berichten haben wir die Feststellungen verschiedner erfahrener Fabrikanten wiedergegeben, die besagen, daß Überstunden ... sicher die Gefahr in sich bergen, die Arbeitskraft des Menschen vorzeitig zu erschöpfen.“ (l.c. 64, p. XIII.)

Next, Marx brings a second argument, which has nothing to do with the concern for the worker, but is solely based on the self-interest of capital: it is against the interest of capital to ignore the physiological boundaries II:

272:1 But the value of the labor-power includes the value of the commodities necessary for the reproduction of the worker, or for the keeping up of the working-class. If then the unnatural extension of the working-day, that capital necessarily strives after in its unmeasured passion for self-expansion, shortens the length of life of the individual laborer, and therefore the duration of his labor-power, the forces used up have to be replaced at a more rapid rate and the sum of the expenses for the reproduction of labor-power will be greater; just as in a machine the part of its value to be reproduced every day is greater the more rapidly the machine is worn out.

281:2 Der Wert der Arbeitskraft schließt aber den Wert der Waren ein, welche zur Reproduktion des Arbeiters oder zur Fortpflanzung der Arbeiterklasse erheischt sind. Wenn also die naturwidrige Verlängerung des Arbeitstags, die das Kapital in seinem maßlosen Trieb nach Selbstverwertung notwendig anstrebt, die Lebensperiode der einzelnen Arbeiter und damit die Dauer ihrer Arbeitskraft verkürzt, wird rascherer Ersatz der verschlissenen nötig, also das Eingehen größerer Verschleißkosten in die Reproduktion der Arbeitskraft, ganz wie der täglich zu reproduzierende Wertteil einer Maschine um so größer ist, je rascher sie verschleißt.

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The comparison with a machine is not sufficient to make the point which comes next, since the capitalist does not lose as long as the higher wages are proportional to the higher amount of labor received. In *Value, Price and Profit*, [mecw20]141:1, Marx makes the further point:

“But this distinguishes the working man from the machine. Machinery does not wear out exactly in the same ratio in which it is used. Man, on the contrary, decays in a greater ratio than would be visible from the mere numerical addition of work.”

In *Capital*, Marx says something similar in chapter Seventeen, 527:2. It is because of this disproportionality that the overuse of labor-power decreases the rate of surplus-value.

It would seem therefore that the interest of capital itself points in the direction of a normal working-day.

Das Kapital scheint daher durch sein eignes Interesse auf einen Normalarbeitstag hingewiesen.

Question 865 Explain how an excessive lengthening of the work day decreases the rate of surplus-value. 2012fa, 2011fa, 2010fa, 2009fa, 2007SP, 2005fa, 2002fa.

Does this mean that capital will indeed shorten the work day? The answer is no, because the workers killed off prematurely are replaced from the rural overpopulation. In order to develop this part of the argument, Marx uses slavery as an example:

272:2–3 The slave-owner buys his laborer as he buys his horse. If he loses his slave, he loses capital that can only be restored by new outlay in the slave-market.

281:3–282:0 Der Sklavenhalter kauft seinen Arbeiter, wie er sein Pferd kauft. Mit dem Sklaven verliert er ein Kapital, das durch neue Auslage auf dem Sklavenmarkt ersetzt werden muß.

↑ Does this mean that the economic self-interest of the slave master protects the slave?
But

“the rice-grounds of Georgia, or the swamps of the Mississippi may be fatally injurious to the human constitution; but the waste of human life which the cultivation of these districts necessitates, is not so great that it cannot be repaired from the teeming preserves of Virginia and Kentucky.

Aber

„die Reisfelder von Georgien und die Sümpfe des Mississippi mögen fatalistisch zerstörend auf die menschliche Konstitution wirken; dennoch ist diese Verwüstung von menschlichem Leben nicht so groß, daß sie nicht gutgemacht werden könnte aus den strotzenden Gehegen von Virginien und Kentucky.

↓ Under these conditions, considerations of economy do not help the slave but, on the contrary, are murderous:

Considerations of economy, moreover, which, under a natural system, afford some security for humane treatment by identifying the master’s interest with the slave’s preservation, when once trading in slaves is practiced, become reasons for racking to the uttermost the toil of the slave; for, when his place can at once be supplied from foreign preserves, the duration of his life becomes a matter of less moment than its productiveness while it lasts. It is accordingly a maxim of slave management, in slave-importing countries, that the most effective economy is that which takes

Ökonomische Rücksichten, die eine Art Sicherheit für die menschliche Behandlung des Sklaven bieten könnten, sofern sie das Interesse des Herrn mit der Erhaltung des Sklaven identifizieren, verwandeln sich, nach Einführung des Sklavenhandels, umgekehrt in Gründe der extremsten Zugrunderichtung des Sklaven, denn sobald sein Platz einmal durch Zufuhr aus fremden Negergehegen ausgefüllt werden kann, wird die Dauer seines Lebens minder wichtig als dessen Produktivität, solange es dauert. Es ist daher eine Maxime der Sklavenwirtschaft in Ländern der Sklavenein-

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out of the human chattel in the shortest space of time the utmost amount of exertion it is capable of putting forth.

This quote also gives some empirical data:

It is in tropical culture, where annual profits often equal the whole capital of plantations, that negro life is most recklessly sacrificed. It is the agriculture of the West Indies, which has been for centuries prolific of fabulous wealth, that has engulfed millions of the African race. It is in Cuba, at this day, whose revenues are reckoned by millions, and whose planters are princes, that we see in the servile class, the coarsest fare, the most exhausting and unremitting toil, and even the absolute destruction of a portion of its numbers every year.”¹⁰⁶

¹⁰⁶ Cairnes, “The Slave Power,” pp. 110, 111.

↓ Very similar mechanisms are at work in capitalism:

272:4–273:1 Under a different name the story is being told about you. For slave-trade read labor-market, for Kentucky and Virginia, Ireland and the agricultural districts of England, Scotland, and Wales, for Africa, Germany. We heard how over-work thinned the ranks of the bakers in London. Nevertheless, the London labor-market is always over-stocked with German and other candidates for death in the bakeries. Pottery, as we saw, is one of the shortest-lived industries. Is there any want therefore of potters? Josiah Wedgwood, the inventor of modern pottery, himself originally a common workman, said in 1785 before the House of Commons that the whole trade employed from 15,000 to 20,000 people.¹⁰⁷ In the year 1861 the population alone of the town centres of this industry in Great Britain numbered 101,302.

“The cotton trade has existed for ninety years ... It has existed for three generations of the English race, and I believe I may safely say that during that period it has destroyed nine generations of factory operatives.”¹⁰⁸

¹⁰⁷ John Ward: “The Borough of Stoke-upon-Trent,” London, 1843, p. 42.

fuhr, daß die wirksamste Ökonomie darin besteht, die größtmöglichste Masse Leistung in möglichst kurzer Zeit dem Menschenvieh (human chattle) auszupressen.

Grade in tropischer Kultur, wo die jährlichen Profite oft dem Gesamtkapital der Pflanzungen gleich sind, wird das Negerleben am rücksichtslosesten geopfert. Es ist die Agrikultur Westindiens, seit Jahrhunderten die Wiege fabelhaften Reichtums, die Millionen der afrikanischen Race verschlungen hat. Es ist heutzutage in Kuba, dessen Revenuen nach Millionen zählen, und dessen Pflanze Fürsten sind, wo wir bei der Sklavenklasse außer der größten Nahrung, der erschöpfendsten und unablässigsten Plackerei einen großen Teil durch die langsame Tortur von Überarbeit und Mangel an Schlaf und Erholung jährlich direkt zerstört sehn.“¹⁰⁶

¹⁰⁶ Cairnes, l.c. p. 110, 111.

282:1 Mutato nomine de te fabula narratur! Lies statt Sklavenhandel Arbeitsmarkt, statt Kentucky und Virginien Irland und die Agrikulturdistrikte von England, Schottland und Wales, statt Afrika Deutschland! Wir hörten, wie die Überarbeit mit den Bäckern in London aufräumt, und dennoch ist der Londoner Arbeitsmarkt stets überfüllt mit deutschen und andren Todeskandidaten für die Bäckerei. Die Töpferei, wie wir sahen, ist einer der kurzlebigsten Industriezweige. Fehlt es deswegen an Töpfern? Josiah Wedgwood, der Erfinder der modernen Töpferei, von Haus selbst ein gewöhnlicher Arbeiter, erklärte 1785 vor dem Hause der Gemeinen, daß die ganze Manufaktur 15000 bis 20000 Personen beschäftigt.¹⁰⁷ Im Jahr 1861 betrug die Bevölkerung allein der städtischen Sitze dieser Industrie in Großbritannien 101302.

„Die Baumwollindustrie zählt 90 Jahre ... In drei Generationen der englischen Race hat sie neun Generationen von Baumwollarbeitern verspeist.“¹⁰⁸

¹⁰⁷ John Ward, „History of the Borough of Stoke-upon-Trent etc.“, London 1843, p. 42.

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¹⁰⁸ Ferrand's Speech in the House of Commons, 27th April, 1863.

¹⁰⁸ Ferrands Rede im „House of Commons“ vom 27. April 1863.

Question 866 *What is wrong with the argument that the economic self-interest of the capitalists themselves will see to it that they treat their workers well?* [2012fa](#), [2008fa](#), [2004fa](#), [2002fa](#).

273:2 No doubt in certain epochs of feverish activity the labor-market shows significant gaps. In 1834, *e.g.* But then the manufacturers proposed to the Poor Law Commissioners that they should send the “surplus-population” of the agricultural districts to the north, with the explanation “that the manufacturers would absorb and use it up.”¹⁰⁹

¹⁰⁹ Those were the very words used by the cotton manufacturers.” l.c.

273:3 “Agents were appointed with the consent of the Poor Law Commissioners ... An office was set up in Manchester, to which lists were sent of those workpeople in the agricultural districts wanting employment, and their names were registered in books. The manufacturers attended at these offices, and selected such persons as they chose; when they had selected such persons as their ‘wants required’, they gave instructions to have them forwarded to Manchester, and they were sent, ticketed like bales of goods, by canals, or with carriers, others tramping on the road, and many of them were found on the way lost and half-starved. This system had grown up unto a regular trade. This House will hardly believe it, but I tell them, that this traffic in human flesh was as well kept up, they were in effect as regularly sold to these [Manchester] manufacturers as slaves are sold to the cotton-grower in the United States ... In 1860, ‘the cotton trade was at its zenith.’ ... The manufacturers again found that they were short of hands ... They applied to the ‘flesh agents’, as they are called. Those agents sent to the southern downs of England, to the pastures of Dorsetshire, to the glades of Devonshire, to the people tending kine in Wiltshire, but they sought in vain. The surplus-population was ‘absorbed.’”

273:4–5 The *Bury Guardian* said, on the completion of the French treaty, that

282:3 Allerdings, in einzelnen Epochen fieberhaften Aufschwungs zeigte der Arbeitsmarkt bedenkliche Lücken. So z.B. 1834. Aber die Herren Fabrikanten schlugen nun den Poor Law Commissioners vor, die „Übervölkerung“ der Ackerbaudistrikte nach dem Norden zu schicken, mit der Erklärung, daß „die Fabrikanten sie absorbieren und konsumieren würden“. Dies waren ihre eigensten Worte.¹⁰⁹

¹⁰⁹ „That the manufacturers would absorb it and use it up. Those were the very words used by the cotton manufacturers.“ (l.c.)

283:1 „Agenten wurden zu Manchester bestellt mit Einwilligung der Poor Law Commissioners. Agrikulturarbeiterlisten wurden ausgefertigt und diesen Agenten übermacht. Die Fabrikanten liefen in die Büros, und nachdem sie, was ihnen paßte, ausgewählt, wurden die Familien vom Süden Englands verschickt. Diese Menschenpakete wurden geliefert mit Etiketten gleich so viel Güterballen, auf Kanal und Lastwagen—einige strolchten zu Fuß nach, und viele irrten verloren und halb verhungert in den Manufakturdistrikten umher. Dies entwickelte sich zu einem wahren Handelszweig. Das Haus der Gemeinen wird es kaum glauben. Dieser regelmäßige Handel, dieser Schacher in Menschenfleisch dauerte fort, und diese Leute wurden gekauft und verkauft von den Manchester Agenten an die Manchester Fabrikanten, ganz so regelmäßig wie Neger an die Baumwollpflanzer der südlichen Staaten ... Das Jahr 1860 bezeichnet das Zenit der Baumwollindustrie ... Es fehlte wieder an Händen. Die Fabrikanten wandten sich wieder an die Fleischagenten ... und diese durchstöberten die Dünen von Dorset, die Hügel von Devon und die Ebenen von Wilts, aber die Übervölkerung war bereits versepeist.“

283:2 Der „Bury Guardian“ jammerte, daß 10000 zusätzliche Hände nach Ab-

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“10,000 additional hands could be absorbed by Lancashire, and that 30,000 or 40,000 will be needed.” After the “flesh agents and sub-agents” had in vain sought through the agricultural districts,

“a deputation came up to London, and waited on the right hon. gentleman [Mr. Villiers, President of the Poor Law Board] with a view of obtaining poor children from certain union houses for the mills of Lancashire.”¹¹⁰

¹¹⁰ I.c. Mr. Villiers, despite the best of intentions on his part, was “legally” obliged to refuse the requests of the manufacturers. These gentlemen, however, attained their end through the obliging nature of the local poor law boards. Mr. A. Redgrave, Inspector of Factories, asserts that this time the system under which orphans and pauper children were treated “legally” as apprentices “was not accompanied with the old abuses” (on these “abuses” see Engels, l.c.), although in one case there certainly was “abuse of this system in respect to a number of girls and young women brought from the agricultural districts of Scotland into Lancashire and Cheshire.” Under this system the manufacturer entered into a contract with the workhouse authorities for a certain period. He fed, clothed and lodged the children, and gave them a small allowance of money. A remark of Mr. Redgrave to be quoted directly seems strange, especially if we consider that even among the years of prosperity of the English cotton trade, the year 1860 stands unparalleled, and that, besides, wages were exceptionally high. For this extraordinary demand for work had to contend with the depopulation of Ireland, with unexampled emigration from the English and Scotch agricultural districts to Australia and America, with an actual diminution of the population in some of the English agricultural districts, in consequence partly of an actual breakdown of the vital force of the laborers, partly of the already effected dispersion of the disposable population through the dealers in human flesh. Despite all this Mr. Redgrave says: “This kind of labor, however, would only be sought after when none other could be procured, for it is a high-priced labor. The ordinary wages of a boy of 13 would be about 4s. per week, but to lodge, to clothe, to feed, and to provide medical attendance and

schluß des englisch-französischen Handelsvertrags absorbiert werden könnten und bald an 30000 oder 40000 mehr nötig sein würden. Nachdem die Agenten und Subagenten des Fleischhandels die Agrikulturdistrikte 1860 ziemlich resultatlos durchgefegt,

„wandte sich eine Fabrikantendeputation an Herrn Villiers, Präsidenten des Poor Law Board, mit dem Gesuch, die Zufuhr der Armen- und Waisen Kinder aus den Workhouses wieder zu erlauben“¹¹⁰

¹¹⁰ I.c. Villiers, trotz bestem Willen, war „gesetzlich“ in der Lage, das Fabrikantenanliegen abschlagen zu müssen. Die Herren erreichten jedoch ihre Zwecke durch die Willfährigkeit der lokalen Armenverwaltungen. Herr A. Redgrave, Fabrikinspektor, versichert, daß diesmal das System, wonach die Waisen und Paupers Kinder „gesetzlich“ als apprentices (Lehrlinge) gelten, „nicht begleitet war von den alten Mißständen—(über diese „Mißstände“ vgl. Engels, l.c.)—, obgleich allerdings in einem Fall „Mißbrauch mit dem System getrieben worden ist, in bezug auf Mädchen und junge Weiber, die von den Agrikulturdistrikten Schottlands nach Lancashire und Cheshire gebracht wurden“. In diesem „System“ schließt der Fabrikant einen Kontrakt mit den Behörden der Armenhäuser für bestimmte Perioden. Er nährt, kleidet und logiert die Kinder und gibt ihnen einen kleinen Zuschuß in Geld. Sonderbar klingt folgende Bemerkung des Herrn Redgrave, namentlich wenn man bedenkt, daß selbst unter den Prosperitätsjahren der englischen Baumwollindustrie das Jahr 1860 einzig dasteht und die Arbeitslöhne außerdem hoch standen, weil die außerordentliche Arbeitsnachfrage auf Entvölkerung in Irland stieß, auf beispiellose Auswanderung aus englischen und schottischen Agrikulturdistrikten nach Australien und Amerika, auf positive Abnahme der Bevölkerung in einigen englischen Agrikulturdistrikten infolge teils glücklich erzielten Bruchs der Lebenskraft, teils des früheren Abschöpfens der disponiblen Bevölkerung durch die Händler in Menschenfleisch. Und trotz alledem sagt Herr Redgrave: „Diese Art Arbeit“ (der Armenhauskinder) „wird jedoch nur gesucht, wenn keine andre gefunden werden kann, denn es ist teure Arbeit (high-priced labor). Der gewöhnliche Arbeitslohn für einen Jungen von 13 Jahren ist un-

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proper superintendence for 50 or 100 of these boys, and to set aside some remuneration for them, could not be accomplished for 4s. a-head per week.” (Report of the Inspector of Factories for 30th April, 1860, p. 27.) Mr. Redgrave forgets to tell us how the laborer himself can do all this for his children out of their 4s. a-week wages, when the manufacturer cannot do it for the 50 or 100 children lodged, boarded, superintended all together. To guard against false conclusions from the text, I ought here to remark that the English cotton industry, since it was placed under the Factory Act of 1850 with its regulations of labor-time, etc., must be regarded as the model industry of England. The English cotton operative is in every respect better off than his Continental companion in misery. “The Prussian factory operative labors at least ten hours per week more than his English competitor, and if employed at his own loom in his own house, his labor is not restricted to even those additional hours. (“Rep. of Insp. of Fact.,” 31st October, 1855, p. 103.) Redgrave, the Factory Inspector mentioned above, after the Industrial Exhibition in 1851, travelled on the Continent, especially in France and Germany, for the purpose of inquiring into the conditions of the factories. Of the Prussian operative he says: “He receives a remuneration sufficient to procure the simple fare, and to supply the slender comforts to which he has been accustomed . . . He lives upon his coarse fare, and works hard, wherein his position is subordinate to that of the English operative.” (“Rep. of Insp. of Fact.” 31st Oct., 1855, p. 85.)

gefähr 4 sh. wöchentlich; aber 50 oder 100 solcher Jungen logieren, kleiden, nähren, mit ärztlicher Hilfsleistung und passender Oberaufsicht versehen und ihnen obendrein eine kleine Zubuße in Geld geben, ist untüchtig für 4 sh. per Kopf wöchentlich.“ („Rep. of the Insp. of Factories for 30th April 1860“, p. 27.) Herr Redgrave vergißt zu sagen, wie der Arbeiter selbst dies alles seinen Jungen für ihre 4 sh. Arbeitslohn leisten kann, wenn es der Fabrikant nicht kann für 50 oder 100 Jungen, die gemeinsam logiert, beköstigt und beaufsichtigt werden. Zur Abwehr falscher Schlußfolgerungen aus dem Text muß ich hier noch bemerken, daß die englische Baumwollindustrie, seit ihrer Unterwerfung unter den Factory Act von 1850 mit seiner Regelung der Arbeitszeit usw., als die englische Musterindustrie betrachtet werden muß. Der englische Baumwollarbeiter steht in jeder Hinsicht höher als sein kontinentaler Schicksalsgenosse. „Der preußische Fabrikarbeiter arbeitet mindestens 10 Stunden mehr per Woche als sein englischer Rival, und wenn er an seinem eignen Webstuhl zu Hause beschäftigt wird, fällt selbst diese Schranke seiner zusätzlichen Arbeitsstunden weg. („Rep. of Insp. of Fact. 31st Oct. 1855“, p. 103.) Der obenerwähnte Fabrikinspektor Redgrave reiste nach der Industrieausstellung von 1851 auf dem Kontinent, speziell in Frankreich und Preußen, um die dortigen Fabrikzustände zu untersuchen. Er sagt von dem preußischen Fabrikarbeiter: „Er erhält einen Lohn, ausreichend zur Verschaffung einfacher Kost und des wenigen Komforts, woran er gewöhnt und womit er zufrieden ist . . . Er lebt schlechter und arbeitet härter als sein englischer Rivale.“ („Rep. of Insp. of Fact. 31st Oct. 1855“, p. 85.)

Although a part of the population is killed off by overwork, the labor market is generally still full. Only “in certain epochs of feverish activity the labor-market shows significant gaps” 273:2. Where does this supply of labor come from?

- Immigration
- Rapid reproduction of the weak generations
- “Surplus-population” from the agricultural districts, trade in workers from the rural North to Manchester etc.
- Child labor (workhouses of orphans, 273:4–5).

The *general* reasons why there is always surplus-labor in capitalism are not discussed here, they will be developed in chapter Twenty-Five.

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Very important general conclusions about the workings of capitalism can be drawn from this. Marx first points out two empirical facts, and then says that because of the first of these two facts capital disregards the second. Here is the first fact:

274/oo What experience shows to the capitalist generally is a constant excess of population, i.e., an excess in relation to the momentary requirements of surplus-labor-absorbing capital, although this excess is made up of generations of human beings stunted, short-lived, swiftly replacing each other, plucked, so to say, before maturity.¹¹¹

¹¹¹ The over-worked “die off with strange rapidity; but the places of those who perish are instantly filled, and a frequent change of persons makes no alteration in the scene.” (“England and America,” London, 1833, vol. I, p. 55. By E. G. Wakefield.)

On the market there is a surplus-population in relation to the needs of capital to create surplus-value. It is again not discussed whether this surplus-population is an accident or why it is there. Now the second fact:

And, indeed, experience shows to the intelligent observer with what swiftness and grip the capitalist mode of production, dating, historically speaking, only from yesterday, has seized the vital power of the people by the very root—shows how the degeneration of the industrial population is only retarded by the constant absorption of primitive and physically uncorrupted elements from the country—shows how even the country laborers, in spite of fresh air and the principle of natural selection, that works so powerfully amongst them, and only permits the survival of the strongest, are already beginning to die off.¹¹²

¹¹² See “Public Health. Sixth Report of the Medical Officer of the Privy Council, 1863.” Published in London 1864. This report deals especially with the agricultural laborers. “Sutherland . . . is commonly represented as a highly improved county . . . but . . . recent inquiry has discovered that even there, in districts once famous for fine men and gallant soldiers, the inhabitants have degenerated into a meagre and stunted race. In the healthiest situations, on hill sides fronting the sea, the faces of their famished children are

284/oo Was die Erfahrung dem Kapitalisten im allgemeinen zeigt, ist eine beständige Übervölkerung, d.h. Übervölkerung im Verhältnis zum augenblicklichen Verwertungsbedürfnis des Kapitals, obgleich sie aus verkümmerten, schnell hinlebenden, sich rasch verdrängenden, sozusagen unreif gepflückten Menschengenerationen ihren Strom bildet.¹¹¹

¹¹¹ „Die Überarbeiteten sterben mit befremdlicher Raschheit; aber die Plätze derer, die untergehen, sind sofort wieder ausgefüllt, und ein häufiger Wechsel der Personen bringt keine Änderung auf der Bühne hervor.“ „England and America“, London 1833, t. I, p. 55. (Verfasser E. G. Wakefield.)

Allerdings zeigt die Erfahrung dem verständigen Beobachter auf der andren Seite, wie rasch und tief die kapitalistische Produktion, die, geschichtlich gesprochen, kaum von gestern datiert, die Volkskraft an der Lebenswurzel ergriffen hat, wie die Degeneration der industriellen Bevölkerung nur durch beständige Absorption naturwüchsiger Lebelemente vom Lande verlangsamt wird und wie selbst die ländlichen Arbeiter, trotz freier Luft und des unter ihnen so allmächtig waltenden principle of natural selection, das nur die kräftigsten Individuen aufkommen läßt, schon abzuleben beginnen.¹¹²

¹¹² Siehe Public Health. Sixth Report of the Medical Officer of the Privy Council. 1863. Veröffentlicht London 1864. Dieser Report handelt namentlich von den Agrikulturarbeitern. „Man hat die Grafschaft Sutherland als eine sehr verbesserte Grafschaft dargestellt, aber eine neuerliche Untersuchung hat entdeckt, daß hier in Distrikten, einst so berühmt wegen schöner Männer und tapfrer Soldaten, die Einwohner degeneriert sind zu einer magren und verkümmerten Race. In den gesunden Lagen, auf Hügelabhängen

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as pale as they could be in the foul atmosphere of a London alley.” (W. Th. Thornton. “Overpopulation and its Remedy.” l.c., pp. 74, 75.) They resemble in fact the 30,000 “gallant Highlanders” whom Glasgow herds together with prostitutes and thieves in its wynds and closes.

im Angesicht des Meeres, sind die Gesichter ihrer Kinder so dünn und blaß, wie sie nur in der faulen Atmosphäre einer Londoner Winkelgasse sein können.“ (Thornton, l.c. p. 74, 75.) Sie gleichen in der Tat den 30000 „gallant Highlanders“, die Glasgow in seinen wynds und closes mit Prostituierten und Dieben zusammenbettet.

Any “intelligent” (“verständige,” Hegel’s Verstand i.e., analytical reason, not Vernunft!) observer can see the degeneration of the industrial population. Capital, however, theoretically denies it:

Capital, that has such “good reasons” for denying the sufferings of the legions of workers that surround it, ...

Das Kapital, das so „gute Gründe“ hat, die Leiden der es umgebenden Arbeitergeneration zu leugnen, ...

Hegel says that any halfways intelligent person can come up with “good reasons” to excuse anything (citation in footnote 102 to paragraph 268:2–269:1 above). But the phrase “good reasons” also refers to capital’s profit motive. Capital is not moved by these sufferings because due to the surplus-labor they are not translated into higher wages and lower profits.

... is in practice moved as much and as little by the sight of the coming degradation and final depopulation of the human race, as by the probable fall of the earth into the sun.

... wird in seiner praktischen Bewegung durch die Aussicht auf zukünftige Verfaulung der Menschheit und schließlich doch unaufhaltsame Entvölkerung so wenig und so viel bestimmt als durch den möglichen Fall der Erde in die Sonne.

Question 867 *Why is nobody in his right mind determined in his actions by the eventual fall of the earth into the sun?* 2011fa, 2009fa.

In every stock-jobbing swindle everyone knows that some time or other the crash must come, but everyone hopes that it may fall on the head of his neighbor, after he himself has caught the shower of gold and placed it in secure hands. *After me the deluge* is the watchword of every capitalist and of every capitalist nation.

In jeder Aktienschwindelei weiß jeder, daß das Unwetter einmal einschlagen muß, aber jeder hofft, daß es das Haupt seines Nächsten trifft, nachdem er selbst den Goldregen aufgefangen und in Sicherheit gebracht hat. *Après moi le déluge!* ist der Wahlruf jedes Kapitalisten und jeder Kapitalistennation.

Capital’s only standard is profitability. This is why it must be forced *by law* to heed the bounds of the working-day:

Capital therefore takes no account of the health and the length of life of the worker, unless society forces it to do so.¹¹³

Das Kapital ist daher rücksichtslos gegen Gesundheit und Lebensdauer des Arbeiters, wo es nicht durch die Gesellschaft zur Rücksicht gezwungen wird.¹¹³

Note that it is “society,” not “the working-class,” or “the state” which forces capital! Society, however, is an empty abstraction if one does not look at its two main classes. It is therefore not society acting in unison, but it is the struggle of the working class against the capitalists which imposes on the capitalist class the self-discipline needed for their long-term interests.

¹¹³ ‘But though the health of a population is so important a fact of the national capital, we are

¹¹³ „Obgleich die Gesundheit der Bevölkerung ein so wichtiges Element des nationalen Kapi-

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afraid it must be said that the class of employers of labor have not been the most forward to guard and cherish this treasure ... The consideration of the health of the operatives was forced upon the mill owners' (*The Times*, 5 November 1861). 'The men of the West Riding became the clothiers of mankind ... the health of the workpeople was sacrificed, and the race in a few generations must have degenerated. But a reaction set in. Lord Shaftesbury's Bill limited the hours of children's labor, etc.' (Twenty-Second Annual Report of the Registrar-General, for October 1861).

To the outcry about physical and mental degradation, the premature death, the torture of overwork, it answers: Ought these to trouble us since they increase our profits?

Note that the profits are increased although we got before the result that if the full value of the labor-power would have been paid, the rate of surplus-value would have fallen. Either economy of constant capital or payment below the value of labor-power (surplus-population) or both.

But looking at things as a whole, all this does not, indeed, depend on the good or ill will of the individual capitalist. Free competition enforces the inherent laws of capitalist production as external coercive necessities confronting the individual capitalist.¹¹⁴

Footnote 114 throws light on the workings of competition: it can go against the will of the capitalists, can force them to do things which they do not want to do.

¹¹⁴ We, therefore, find, e.g., that in the beginning of 1863, 26 firms owning extensive potteries in Staffordshire, including Josiah Wedgwood and Sons, petition in a memorial for "some legislative enactment." "Competition with other capitalists" permits them no "voluntary" limitation of working time for children, etc. "Much as we deplore the evils before mentioned, it would not be possible to prevent them by any scheme of agreement between the manufacturers ... Taking all these points into consideration, we have come to the conviction that some legislative enactment is wanted." ("Children's Employment Comm." Rep. I, 1863, p. 322.)

^{114 ctd} Most recently a much more striking example offers. The rise in the price of cotton during a period of feverish activity, had induced the manufacturers in Blackburn to shorten, by mu-

tals ist, fürchten wir, gestehn zu müssen, daß die Kapitalisten durchaus nicht bei der Hand sind, diesen Schatz zu erhalten und wert zu achten ... Die Rücksicht auf die Gesundheit der Arbeiter wurde den Fabrikanten aufgezwungen." („Times“, 5. Novbr. 1861.) „Die Männer des West Riding wurden die Tuchmacher der Menschheit ... die Gesundheit des Arbeitervolks wurde geopfert, und in ein paar Generationen wäre die Race degeneriert, aber eine Reaktion trat ein. Die Stunden der Kinderarbeit wurden beschränkt usw.“ („Twenty-second annual Report of the Registrar General“, 1861.)

Der Klage über physische und geistige Verkümmrung, vorzeitigen Tod, Tortur der Überarbeit, antwortet es: Sollte diese Qual uns quälen, da sie unsre Lust (den Profit) vermehrt?

Im großen und ganzen hängt dies aber auch nicht vom guten oder bösen Willen des einzelnen Kapitalisten ab. Die freie Konkurrenz macht die immanenten Gesetze der kapitalistischen Produktion dem einzelnen Kapitalisten gegenüber als äußerliches Zwangsgesetz geltend.¹¹⁴

¹¹⁴ Wir finden daher z.B., daß Anfang 1863 26 Firmen, welche ausgedehnte Töpfereien in Staffordshire besitzen, darunter auch J. Wedgwood und Söhne, in einer Dankschrift „um gewaltsame Einmischung des Staats“ petitionieren. Die „Konkurrenz mit andren Kapitalisten“ erlaube ihnen keine „freiwillige“ Beschränkung der Arbeitszeit der Kinder usw. „Sosehr wir daher die oben erwähnten Übel beklagen, würde es unmöglich sein, sie durch irgendeine Art Übereinkunft unter den Fabrikanten zu verhindern ... In Anbetracht aller dieser Punkte, sind wir zur Überzeugung gelangt, daß ein Zwangsgesetz nötig ist.“ („Children's Emp. Comm., Rep. I“, 1863, p. 322.)

^{114 ctd} Zusatz zu Note 114. Ein viel frappantes Beispiel bot die jüngste Vergangenheit. Die Höhe der Baumwollpreise, in einer Epoche fieberhaften Geschäfts, hatte die Besitzer

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tual consent, the working time in their mills during a certain fixed period. This period terminated about the end of November, 1871. Meanwhile, the wealthier manufacturers, who combined spinning with weaving, used the diminution of production resulting from this agreement, to extend their own business and thus to make great profits at the expense of the small employers. The latter thereupon turned in their extremity to the operatives, urged them earnestly to agitate for the 9 hours' system, and promised contributions in money to this end.

von Baumwollwebereien in Blackburn veranlaßt, durch gemeinschaftliche Übereinkunft die Arbeitszeit in ihren Fabriken während eines bestimmten Termins abzukürzen. Dieser Termin lief ab ungefähr Ende November (1871). Unterdes benutzten die reichen Fabrikanten, welche Spinnerei mit Weberei verbinden, den durch jene Übereinkunft veranlaßten Ausfall der Produktion dazu, ihr eignes Geschäft auszudehnen und so auf Kosten der kleinen Meister große Profite zu machen. Letztre wandten sich nun in ihrer Not—an die Fabrikarbeiter, riefen sie auf, die Neunstundenagitation ernsthaft zu betreiben, und versprachen Geldbeiträge zu diesem Behuf!

Question 870 *Why were some capitalists themselves in favor of shortening the work day?*
2012fa.

The remainder of section 5 and the remainder of chapter Ten are not yet ready for publication.

10.5.b. [Legislation Extending the working-day]

Two phases in the struggle between capitalist and laborer for the determination of the working-day: first extension, later shortening.

276:1/o The establishment of a normal working-day is the result of centuries of struggle between capitalist and laborer. The history of this struggle shows two opposite tendencies. Compare, e.g., the English factory legislation of our time with the English labor Statutes from the 14th century to well into the middle of the 18th.¹¹⁵ Whilst the modern Factory Acts compulsorily shortened the working-day, the earlier statutes tried to lengthen it by compulsion.

¹¹⁵ The labor Statutes, the like of which were enacted at the same time in France, the Netherlands, and elsewhere, were first formally repealed in England in 1813, long after the changes in relations of production had rendered them obsolete.

286:1/o Die Festsetzung eines normalen Arbeitstags ist das Resultat eines vielhundertjährigen Kampfes zwischen Kapitalist und Arbeiter. Doch zeigt die Geschichte dieses Kampfes zwei entgegengesetzte Strömungen. Man vergleiche z.B. die englische Fabrikgesetzgebung unsrer Zeit mit den englischen Arbeitsstatuten vom 14. bis tief in die Mitte des 18. Jahrhunderts.¹¹⁵ Während das moderne Fabrikgesetz den Arbeitstag gewaltsam abkürzt, suchen ihn jene Statute gewaltsam zu verlängern.

¹¹⁵ Diese Arbeiterstatute, die man gleichzeitig auch in Frankreich, den Niederlanden usw. findet, wurden in England erst 1813 formell aufgehoben, nachdem sie längst von den Produktionsverhältnissen beseitigt waren.

Instead of "relations of production" Moore-Aveling has "methods of production."

The early legal extension is modest compared to the extension during the Industrial Revolution based on market forces.

Of course the demands of capital in embryo—when, in the process of becoming, it secures
Allerdings erscheinen die Ansprüche des Kapitals im Embryozustand, wo es erst

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the right of absorbing a sufficient amount of surplus-labor not yet by the mere force of economic relations, but also by the help of the State—appear very modest when compared with the concessions that, growling and reluctantly, it has to make in its adult condition. It takes centuries before the “free” laborer, thanks to the development of capitalist production, agrees, *i.e.*, is compelled by social conditions, to sell the whole of his active life, his very capacity for work, for the price of the necessities of life, his birth-right for a mess of pottage.

The upper limit of the extension for adults roughly equal to the lower limit of shortening for children at the time *Capital* was written (this will once more be taken up in 282:1).

Hence it is natural that the lengthening of the working-day, which capital, from the middle of the 14th to the end of the 17th century, tries to impose by State-measures on adult laborers, approximately coincides with the shortening of the working-day which, in the second half of the 19th century, has here and there been effected by the State to prevent the coining of children’s blood into capital. That which to-day, *e.g.*, in the State of Massachusetts, until recently the freest State of the North-American Republic, has been proclaimed as the statutory limit of the labor of children under 12, was in England, even in the middle of the 17th century, the normal working-day of able-bodied artisans, robust laborers, and athletic blacksmiths.¹¹⁶

wird, also noch nicht durch bloße Gewalt der ökonomischen Verhältnisse, sondern auch durch Hilfe der Staatsmacht sein Einsaugungsrecht eines genügenden Quantum Mehrarbeit sichert, ganz und gar bescheiden, vergleicht man sie mit den Konzessionen, die es in seinem Mannesalter knurrend und widerstrebend machen muß. Es kostet Jahrhunderte, bis der „freie“ Arbeiter infolge entwickelter kapitalistischer Produktionsweise sich freiwillig dazu versteht, d.h. gesellschaftlich gezwungen ist, für den Preis seiner gewohnheitsmäßigen Lebensmittel seine ganze aktive Lebenszeit, ja seine Arbeitsfähigkeit selbst, seine Erstgeburt für ein Gericht Linsen zu verkaufen.

Es ist daher natürlich, daß die Verlängerung des Arbeitstags, die das Kapital von Mitte des 14. bis Ende des 17. Jahrhunderts staatsgewaltig den volljährigen Arbeitern aufzudringen sucht, ungefähr mit der Schranke der Arbeitszeit zusammenfällt, die in der zweiten Hälfte des 19. Jahrhunderts der Verwandlung von Kinderblut in Kapital hier und da von Staats wegen gezogen wird. Was heute, z.B. im Staate Massachusetts, bis jüngst dem freisten Staate der nordamerikanischen Republik, als Staatsschranke der Arbeit von Kindern unter 12 Jahren proklamiert ist, war in England noch Mitte des 17. Jahrhunderts der normale Arbeitstag vollblütiger Handwerker, robuster Ackerknechte und riesenhafter Grobschmiede.¹¹⁶

Question 871 Why did the state first pass laws to extend the working-day, and then to shorten it?

¹¹⁶ “No child under 12 years of age shall be employed in any manufacturing establishment more than 10 hours in one day.” General Statutes of Massachusetts, 63, ch. 12. (The various Statutes were passed between 1836 and 1858.) “Labor performed during a period of 10 hours on any day in all cotton, woollen, silk, paper, glass, and flax factories, or in manufactories of iron and brass, shall be considered a legal day’s labor.

¹¹⁶ „Kein Kind unter 12 Jahren darf in einem Fabrikbetrieb länger als 10 Stunden täglich beschäftigt werden.“ („General Statutes of Massachusetts“, ch. 60, §3. Die Ordonnanzen wurden erlassen 1836 bis 1858.) „Arbeit, die in einem Zeitraum von 10 Stunden täglich in allen Baumwoll-, Woll-, Seiden-, Papier-, Glas, und Flachsfabriken oder in eisen- und anderen metallverarbeitenden Betrieben ausgeführt wird,

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And be it enacted, that hereafter no minor engaged in any factory shall be holden or required to work more than 10 hours in any day, or 60 hours in any week; and that hereafter no minor shall be admitted as a worker under the age of 10 years in any factory within this State." State of New Jersey. An Act to limit the hours of labor, etc., § 1 and 2. (Law of 18th March, 1851.) "No minor who has attained the age of 12 years, and is under the age of 15 years, shall be employed in any manufacturing atabishment more than 11 hours in any one day, nor before 5 o'clock in the morning, nor after 7.30 in the evening." ("Revised Statutes of the State of Rhode Island," etc., ch. 139, § 23, 1st July, 1857.)

soll als Tagewerk im Sinne des Gesetzes angesehen werden. Es sei ferner gesetzlich festgelegt, daß künftig kein Minderjähriger, der in irgendeiner Fabrik beschäftigt wird, angehalten oder aufgefordert werden darf, mehr als 10 Stunden täglich oder 60 Stunden wöchentlich zu arbeiten; weiter, daß in Zukunft kein Minderjähriger unter 10 Jahren als Arbeiter in einer Fabrik innerhalb des Gebietes dieses Staates beschäftigt werden darf." („State of New Jersey. An act to limit the hours of labor etc.“, § 1 und 2. Gesetz vom 18. März 1851.) „Kein Minderjähriger zwischen 12 und 15 Jahren darf in irgendeinem Fabrikbetrieb mehr als täglich 11 Stunden oder vor 5 Uhr morgens oder nach 7 1/2 Uhr abends beschäftigt werden.“ („Revised Statutes of the State of Rhode Island etc.“, ch. 139, § 23, 1st July 1857.)

In the extension phase, capital was not yet strong enough to compel the laborer to work by anonymous market relations, but needed support by the power of the state.

277:1–278:1 The first "Statute of Laborers" (23 Edward III., 1349) found its immediate pretext (not its cause, for legislation of this kind lasts centuries after the pretext for it has disappeared) in the great plague that decimated the people, so that, as a Tory writer says, "The difficulty of getting men to work on reasonable terms, (*i.e.*, at a price that left their employers a reasonable quantity of surplus-labor) grew to such a height as to be quite intolerable."¹¹⁷ Reasonable wages were, therefore, fixed by law as well as the limits of the working-day. The latter point, the only one that here interests us, is repeated in the Statute of 1496 (Henry VII). The working-day for all artificers and field laborers from March to September ought, according to this statute (which, however, could not be enforced), to last from 5 in the morning to between 7 and 8 in the evening. But the meal-times consist of 1 hour for breakfast, 1 1/2 hours for dinner, and 1/2 an hour for "noon-meate," *i.e.*, exactly twice as much as under the factory acts now in force.¹¹⁸ In winter, work was to last from 5 in the morning until dark, with the same intervals. A statute of Elizabeth of 1562 leaves the length of the working-day for all laborers "hired for daily or weekly wage" untouched, but aims at limiting the inter-

287:1–289:0 Das erste „Statute of Laborers“ (23 Eduard III. 1349) fand seinen unmittelbaren Vorwand (nicht seine Ursache, denn die Gesetzgebung dieser Art dauert Jahrhunderte fort ohne den Vorwand) in der großen Pest, welche die Bevölkerung dezimierte, so daß, wie ein Tory-Schriftsteller sagt, „die Schwierigkeit, Arbeiter zu rasonablen Preisen“ (*d.h.* zu Preisen, die ihren Anwendern ein rasonables Quantum Mehrarbeit ließen) „an die Arbeit zu setzen, in der Tat unerträglich wurde“.¹¹⁷ Rasonable Arbeitslöhne wurden daher zwangsgesetzlich diktiert, ebenso wie die Grenze des Arbeitstags. Der letztre Punkt, der uns hier allein interessiert, ist wiederholt in dem Statut von 1496 (unter Henry VII.). Der Arbeitstag für alle Handwerker (*artificers*) und Ackerbauarbeiter vom März bis September sollte damals, was jedoch nie durchgesetzt wurde, dauern von 5 Uhr morgens bis zwischen 7 und 8 Uhr abends, aber die Stunden für Mahlzeiten betragen 1 Stunde für Frühstück, 1 1/2 Stunden für Mittagessen und 1/2 Stunde für Vieruhrbrot, also gerade doppelt soviel als nach dem jetzt gültigen Fabrikakt.¹¹⁸ Im Winter sollte gearbeitet werden von 5 Uhr morgens bis zum Dunkeln, mit denselben Unterbrechungen. Ein Statut der Elisabeth von 1562 für alle

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vals to 2 1/2 hours in the summer, or to 2 in the winter. Dinner is only to last 1 hour, and the "afternoon-sleep of half an hour" is only allowed between the middle of May and the middle of August. For every hour of absence 1d. is to be subtracted from the wage. In practice, however, the conditions were much more favourable to the laborers than in the statute-book. William Petty, the father of Political Economy, and to some extent the founder of Statistics, says in a work that he published in the last third of the 17th century:

"Laboring-men (then meaning field-laborers) work 10 hours per diem, and make 20 meals per week, viz., 3 a day for working-days, and 2 on Sundays; whereby it is plain, that if they could fast on Friday nights, and dine in one hour and an half, whereas they take two, from eleven to one; thereby thus working 1/20 more, and spending 1/20 less, the above-mentioned (tax) might be raised."¹¹⁷

¹¹⁷ "Sophisms of Free Trade." 7th Ed. London, 1850, p. 205, 9th Ed., p. 253. This same Tory, moreover, admits that "Acts of Parliament regulating wages, but against the laborer and in favour of the master, lasted for the long period of 464 years. Population grew. These laws were then found, and really became, unnecessary and burdensome." (l.c., p. 206.)

¹¹⁸ In reference to this statute, J. Wade with truth remarks: "From the statement above (i.e., with regard to the statute) it appears that in 1496 the diet was considered equivalent to one-third of the income of an artificer and one-half the income of a laborer, which indicates a greater degree of independence among the working-classes than prevails at present; for the board, both of laborers and artificers, would now be reckoned at a much higher proportion of their wages." [Wad35, p. 24, 25, and 577]. The opinion that this difference is due to the difference in the price relations between food and clothing then and now is refuted by the most cursory glance at "Chronicon

Arbeiter „gedungen für Lohn per Tag oder Woche“, läßt die Länge des Arbeitstags unberührt, sucht aber die Zwischenräume zu beschränken auf 2 1/2 Stunden für den Sommer und 2 für den Winter. Das Mittagessen soll nur eine Stunde dauern und „der Nachmittagsschlaf von 1/2 Stunde“ nur zwischen Mitte Mai und Mitte August erlaubt sein. Für jede Stunde Abwesenheit soll 1 d. (etwa 8 Pfennige) vom Lohn abgehn. In der Praxis jedoch war das Verhältnis den Arbeitern viel günstiger als im Statutenbuch. Der Vater der politischen Ökonomie und gewissermaßen der Erfinder der Statistik, William Petty, sagt in einer Schrift, die er im letzten Drittel des 17. Jahrhunderts veröffentlichte:

„Arbeiter“ (laboring men, eigentlich damals Ackerbauarbeiter) „arbeiten 10 Stunden täglich und nehmen wöchentlich 20 Mahlzeiten ein, nämlich an Arbeitstagen täglich drei und an Sonntagen zwei; woraus man klärlich sieht, daß, wenn sie an Freitagabenden fasten wollten und in anderthalb Stunden zu Mittag speisen wollten, während sie jetzt zu dieser Mahlzeit zwei Stunden brauchen, von 11 bis 1 Uhr morgens, wenn sie also 1/20 mehr arbeiteten und 1/20 weniger verzehrten, das Zehntel der oben erwähnten Steuer aufbringbar wäre.“¹¹⁹

¹¹⁷ [J. B. Byles,] „Sophisms of Free Trade“, 7th edit., Lond. 1850, p. 205. Derselbe Tory gibt übrigens zu: „Parlamentsakte, die die Arbeitslöhne gegen die Arbeiter zugunsten der Arbeitsanwender regulierten, währten für die lange Periode von 464 Jahren. Die Bevölkerung wuchs. Diese Gesetze wurden nun überflüssig und lästig.“ (l.c. p. 206.)

¹¹⁸ J. Wade bemerkt mit Recht in bezug auf dies Statut: „Aus dem Statut von 1496 geht hervor, daß die Nahrung als Äquivalent für 1/2 des Einkommens eines Handwerkers und 1/3 des Einkommens eines Agrikulturarbeiters galt, und dies zeigt eine größere Stufe von Unabhängigkeit unter den Arbeitern an, als jetzt vorherrscht, wo die Nahrung der Arbeiter in Agrikultur und Manufaktur ein viel höheres Verhältnis zu ihren Löhnen bildet.“ [Wad35, p. 24, 25 und 577] Die Meinung, als sei diese Differenz etwa der Differenz im Preisverhältnis zwischen Nahrungsmitteln und Kleidungsstücken, jetzt und damals, geschuldet, widerlegt der oberflächlichste Blick auf

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Preciosum, etc.” by Bishop Fleetwood, 1st Ed., London, 1707; 2nd Ed., London, 1745.

¹¹⁹ [Pet91, p. 10].

278:2–279:0 Was not Dr. Andrew Ure right in crying down the 12 hours’ bill of 1833 as a retrogression to the times of the dark ages? It is true these regulations contained in the statute mentioned by Petty, apply also to apprentices. But the condition of child-labor, even at the end of the 17th century, is seen from the following complaint:

“‘Tis not their practice (in Germany) as with us in this kingdom, to bind an apprentice for seven years; three or four is their common standard: and the reason is, because they are educated from their cradle to something of employment, which renders them the more apt and docile, and consequently the more capable of attaining to a ripeness and quicker proficiency in business. Whereas our youth, here in England, being bred to nothing before they come to be apprentices, make a very slow progress and require much longer time wherein to reach the perfection of accomplished artists.”¹²⁰

¹²⁰ “A Discourse on the necessity of encouraging Mechanick Industry,” London, 1690, p. 13. Macaulay, who has falsified English history in the interests of the Whigs and the bourgeoisie, declares as follows: “The practice of setting children prematurely to work . . . prevailed in the 17th century to an extent which, when compared with the extent of the manufacturing system, seems almost incredible. At Norwich, the chief seat of the clothing trade, a little creature of six years old was thought fit for labor. Several writers of that time, and among them some who were considered as eminently benevolent, mention with exultation the fact that in that single city, boys and girls of very tender age create wealth exceeding what was necessary for their own subsistence by twelve thousand pounds a year. The more carefully we examine the history of the past, the more reason shall we find to dissent from those who imagine that our age has been fruitful of new social evils. . . . That which is new is the intelligence and the humanity which remedies them.” (“History of England,” vol. 1., p. 417.) Macaulay

„Chronicon Preciosum etc.“ By Bishop Fleetwood, 1st edit., London 1707, 2nd edit., London 1745.

¹¹⁹ W. Petty, [Pet91, p. 10]

289:1 Hatte Dr. Andrew Ure nicht recht, die Zwölfstundenbill von 1833 als Rückgang in die Zeiten der Finsternis zu verschreien? Allerdings gelten die in den Statuten und von Petty erwähnten Bestimmungen auch für „apprentices“ (Lehrlinge). Wie es aber noch Ende des 17. Jahrhunderts mit der Kinderarbeit stand, ersieht man aus folgender Klage:

„Unsere Jugend, hier in England, treibt gar nichts bis zu der Zeit, wo sie Lehrlinge werden, und dann brauchen sie natürlich lange Zeit—sieben Jahre—, um sich zu vollkommenen Handwerkern zu bilden.“ Deutschland wird dagegen gerühmt, weil dort die Kinder von der Wiege auf wenigstens zu „ein bißchen Beschäftigung erzogen werden“.¹²⁰

¹²⁰ „A Discourse on the Necessity of Encouraging Mechanick Industry“, London 1690, p. 13. Macaulay, der die englische Geschichte im Whig- und Bourgeoisinteresse zurechtgefälscht hat, deklamiert, wie folgt: „Die Praxis, Kinder vorzeitig an die Arbeit zu setzen, herrschte im 17. Jahrhundert in einem für den damaligen Zustand der Industrie fast unglaublichen Grad vor. Zu Norwich, dem Hauptsitz der Wollindustrie, wurde ein Kind von 6 Jahren für arbeitsfähig gehalten. Verschiedne Schriftsteller jener Zeit und darunter manche, die als außerordentlich wohlgesinnt betrachtet wurden, erwähnen mit ‚Exultation‘ (Entzücken) die Tatsache, daß in dieser Stadt allein Knaben und Mädchen einen Reichtum schaffen, der über ihren eignen Unterhalt hinaus 12000 Pfd.St. in einem Jahr betrug. Je genauer wir die Geschichte der Vergangenheit untersuchen, desto mehr Grund finden wir, die Ansicht derer zu verwerfen, die unser Zeitalter für fruchtbar an neuen sozialen Übeln halten. Das, was neu ist, ist die Intelligenz, die die Übel entdeckt, und die Humanität, die sie

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might have reported further that “extremely well disposed” *amis du commerce* in the 17th century, narrate with “exultation” how in a poor-house in Holland a child of four was employed, and that this example of “*vertu mise en pratique*” passes muster in all the humanitarian works, à la Macaulay, to the time of Adam Smith. It is true that with the substitution of manufacture for handicrafts, traces of the exploitation of children begin to appear. This exploitation existed always to a certain extent among peasants, and was the more developed, the heavier the yoke pressing on the husbandman. The tendency of capital is there unmistakably; but the facts themselves are still as isolated as the phenomena of two-headed children. Hence they were noted “with exultation” as especially worthy of remark and as wonders by the far-seeing “*amis du commerce*,” and recommended as, modds for their own time and for posterity. This same Scotch sycophant and fine talker, Macaulay, says: “We hear to-day only of retrogression and see only progress.” What eyes, and especially what ears!

heilt.“ („History of England“, v. I, p. 417.) Macaulay hätte weiter berichten können, daß „außerordentlich wohlgesinnte“ *amis du commerce* im 17. Jahrhundert mit „Exultation“ erzählen, wie in einem Armenhaus in Holland ein Kind von 4 Jahren beschäftigt wurde, und daß dies Beispiel der „*vertu mise en pratique*“ in allen Schriften von Humanitären à la Macaulay Muster passiert bis zur Zeit A. Smiths. Es ist richtig, daß mit dem Aufkommen der Manufaktur, im Unterschied zum Handwerk, sich Spuren der Kinderexploitation zeigen, die von jeher bis zu einem gewissen Grad bei den Bauern existiert und um so entwickelter, je härter das Joch, das auf dem Landmann lastet. Die Tendenz des Kapitals ist unverkennbar, aber die Tatsachen selbst stehn noch so vereinzelt wie die Erscheinung zweiköpfiger Kinder. Sie wurden daher mit „Exultation“, als besonders merkwürdig und bewundernswert, von ahnungsvollen „*amis du commerce*“ für Mit- und Nachwelt aufgezeichnet und zur Nachahmung empfohlen. Derselbe schottische Sykophant und Schönredner Macaulay sagt: „Man höre heute nur von Rückschritt und sehe nur Fortschritt.“ Was für Augen und namentlich was für Ohren!

History of the legislation prolonging the working-day. These laws often decrease the wages at the same time! Marx disregards this here, but I think it is important to know about this connection: also the prolongation of the working-day under machinery is one without increasing the wages, or even with decreasing them! It is only a prolongation of the surplus-labor, not one of the necessary labor. Note that in reality the days were generally shorter than the laws prescribed. Regulations not only for adults but also for apprentices and children.

By the way, the beginning of is discussed in [Coh80, p. 279:2–4] as an example of functional explanation. Gives cross reference to footnote 144 to paragraph 406:2 in chapter Fifteen: “Die Engländer, die gern die erste empirische Erscheinungsform einer Sache als ihren Grund betrachten, ...” Cohen also refers here to [mecw8]327:1 (25. Februar 1849), which is interesting regarding legislation.

Despite this legislation, capital did not succeed in taking away from the workers all the free time they had (except from the agrarian workers), i.e., in overriding the traditional *moral* barriers of the working-day. Note that again for the real movement the price is the starting point: the capitalists pay the laborers wages which allow them to live 7 days, but they did not get a full week’s labor-power in return. Pro’s and Con’s of these moral barriers from the point of view of the laborers and the capitalists (Is the point of view of the laborers a part of the “political economy of the working class” about which Marx spoke in a political debate of the International Workmen’s association (According to Naphtali, Wirtschaftsdemokratie, 1928, Reprint FFM 1960, quoted in SoPo 6/7, 48). The one writing for the capitalists proposes an “ideal workhouse” to force the unemployed paupers to work all day long.

279:1–280:0 Still, during the greater part of the 18th century, up to the epoch of Modern Industry and machinism, capital in Eng-

290:1 Noch während des größten Teils des 18. Jahrhunderts, bis zur Epoche der großen Industrie, war es dem Kapital in

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land had not succeeded in seizing for itself, by the payment of the weekly value of labor-power, the whole week of the laborer, with the exception, however, of the agricultural laborers. The fact that they could live for a whole week on the wage of four days, did not appear to the laborers a sufficient reason that they should work the other two days for the capitalist. One party of English economists, in the interest of capital, denounces this obstinacy in the most violent manner, another party defends the laborers. Let us listen, *e.g.*, to the contest between Postlethwayt, whose Dictionary of Trade then had the same reputation as the kindred works of MacCulloch and MacGregor to-day, and the author (already quoted) of the "Essay on Trade and Commerce."¹²¹

¹²¹ Among the accusers of the workpeople, the most angry is the anonymous author quoted in the text of "An Essay on Trade and Commerce, containing Observations on Taxes, etc.," London, 1770. He had already dealt with this subject in his earlier work: "Considerations on Taxes," London, 1765. On the same side follows Polonius Arthur Young, the unutterable statistical prattler. Among the defenders of the working-classes the foremost are: Jacob Vanderlint, in: "Money Answers all Things," London, 1734, the Rev. Nathaniel Forster, D. D., in "An Enquiry into the Causes of the Present High Price of Provisions," London, 1767; Dr. Price, and especially Postlethwayt, as well in the supplement to his "Universal Dictionary of Trade and Commerce," as in his "Great Britain's Commercial Interest explained and improved," 2nd Edition, 1755. The facts themselves are confirmed by many other writers of the time, among others by Josiah Tucker.

280:1–2 Postlethwayt says among other things:

"We cannot put an end to those few observations, without noticing that trite remark in the mouth of too many; that if the industrious poor can obtain enough to maintain themselves in five days, they will not work the whole six. Whence they infer the necessity of even the necessities of life being made

England nicht gelungen, durch Zahlung des wöchentlichen Werts der Arbeitskraft sich der ganzen Woche des Arbeiters, Ausnahme bilden jedoch die Agriculturarbeiter, zu bemächtigen. Der Umstand, daß sie eine ganze Woche mit dem Lohn von 4 Tagen leben konnten, schien den Arbeitern kein hinreichender Grund, auch die andren zwei Tage für den Kapitalisten zu arbeiten. Eine Seite der englischen Ökonomen denunzierte im Dienst des Kapitals diesen Eigensinn aufs wütendste, eine andre Seite verteidigte die Arbeiter. Hören wir z.B. die Polemik zwischen Postlethwayt, dessen Handels-Diktionär damals denselben Ruf genoß wie heutzutage ähnliche Schriften von MacCulloch und MacGregor, und dem früher zitierten Verfasser des „Essay on Trade and Commerce“¹²¹.

¹²¹ Unter den Anklägern der Arbeiter ist der grimmigste der im Text erwähnte anonyme Verfasser von: „An Essay on Trade and Commerce: containing Observations on Taxation etc.“, London 1770. Schon früher in seiner Schrift „Consideration on Taxes“, London 1765. Auch Polonius Arthur Young, der unsägliche statistische Schwätzer, folgt in derselben Linie. Unter den Verteidigern der Arbeiter stehn oben an: Jacob Vanderlint in „Money answers all things“, London 1734, Rev. Nathaniel Forster, D. D. in „An Enquiry into the Causes of the Present [High] Price of Provisions“, London 1767, Dr. Price, und namentlich auch Postlethwayt, sowohl in einem Supplement zu seinem „Universal Dictionary of Trade and Commerce“ als in „Great-Britain's Commercial Interest explained and improved“, 2nd edit., Lond. 1759. Die Tatsachen selbst findet man bei vielen andren gleichzeitigen Schriftstellern konstatiert, u.a. bei Josiah Tucker.

290:2–291:0 Postlethwayt sagt u.a.:

„Ich kann diese wenigen Bemerkungen nicht abschließen, ohne Notiz zu nehmen von der trivialen Redensart in dem Munde zu vieler, daß, wenn der Arbeiter (industrious poor) in 5 Tagen genug erhalten kann, um zu leben, er nicht volle 6 Tage arbeiten will. Daher schließen sie auf die Notwendigkeit, selbst die not-

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dear by taxes, or any other means, to compel the working artisan and manufacturer to labor the whole six days in the week, without ceasing. I must beg leave to differ in sentiment from those great politicians, who contend for the perpetual slavery of the working people of this kingdom; they forget the vulgar adage, all work and no play. Have not the English boasted of the ingenuity and dexterity of her working artists and manufacturers which have heretofore given credit and reputation to British wares in general? What has this been owing to? To nothing more probably than the relaxation of the working people in their own way. Were they obliged to toil the year round, the whole six days in the week, in a repetition of the same work, might it not blunt their ingenuity, and render them stupid instead of alert and dexterous; and might not our workmen lose their reputation instead of maintaining it by such eternal slavery? ... And what sort of workmanship could we expect from such hard-driven animals? ... Many of them will execute as much work in four days as a Frenchman will in five or six. But if Englishmen are to be eternal drudges, 'tis to be feared they will degenerate below the Frenchmen. As our people are famed for bravery in war, do we not say that it is owing to good English roast beef and pudding in their bellies, as well as their constitutional spirit of liberty? And why may not the superior ingenuity and dexterity of, our artists and manufacturers, be owing to that freedom and liberty to direct themselves in their own way, and I hope we shall never have them deprived of such privileges and that good living from whence their ingenuity no less than their courage may proceed.'

wendigen Lebensmittel durch Steuern oder irgendwelche andre Mittel zu verteuern, um den Handwerker und Manufakturarbeiter zu un-
ausgesetzter sechstägiger Arbeit in der Woche zu zwingen. Ich muß um die Erlaubnis bitten, andrer Meinung zu sein als diese großen Politiker, welche für die beständige Sklaverei der Arbeiterbevölkerung dieses Königreichs (the perpetual slavery of the working people) die Lanze einlegen; sie vergessen das Sprichwort „all work and no play“ (nur Arbeit und kein Spiel) macht dumm. Brüsten sich die Engländer nicht mit der Genialität und Gewandtheit ihrer Handwerker und Manufakturarbeiter, die bisher den britischen Waren allgemeinen Kredit und Ruf verschafft haben? Welchem Umstand war dies geschuldet? Wahrscheinlich keinem andren als der Art und Weise, wie unser Arbeitsvolk, eigenlaunig, sich zu zerstreuen weiß. Wären sie gezwungen, das ganze Jahr durchzuarbeiten, alle sechs Tage in der Woche, in steter Wiederholung desselben Werkes, würde das nicht ihre Genialität abstumpfen und sie dumm-träg statt munter und gewandt machen; und würden unsre Arbeiter infolge solcher ewigen Sklaverei ihren Ruf nicht verlieren statt erhalten? ... Welche Art Kunstgeschick könnten wir erwarten von solch hart geplackten Tieren (hard driven animals)? ... Viele von ihnen verrichten soviel Arbeit in 4 Tagen als ein Franzose in 5 oder 6. Aber wenn Engländer ewige Schanzarbeiter sein sollen, so steht zu fürchten, daß sie noch unter die Franzosen entarten (degenerate) werden. Wenn unser Volk wegen seiner Tapferkeit im Krieg berühmt ist, sagen wir nicht, daß dies einerseits dem guten englischen Roastbeef und Pudding in seinem Leibe, andererseits nicht minder unsrem konstitutionellen Geiste der Freiheit geschuldet ist? Und warum sollte die größere Genialität, Energie und Gewandtheit unsrer Handwerker und Manufakturarbeiter nicht der Freiheit geschuldet sein, womit sie sich in ihrer eignen Art und Weise zerstreuen? Ich hoffe, sie werden nie wieder diese Privilegien verlieren, noch das gute Leben, woraus ihre Arbeitstüchtigkeit und ihr Mut gleichmäßig herkommen!’”¹²²

¹²² Postlethwayt, I.c., “First Preliminary Discourse,” p. 14.

¹²² Postlethwayt, I.c., „First Preliminary Discourse“, p. 14.

10.5. Compulsory Laws for Extension of Working-Day

280:3–281:1 Thereupon the author of the „Essay on Trade and Commerce” replies:

“If the making of every seventh day an holiday is supposed to be of divine institution, as it implies the appropriating the other six days to labor” (he means capital as we shall soon see) “surely it will not be thought cruel to enforce it ... That mankind in general, are naturally inclined to ease and indolence, we fatally experience to be true, from the conduct of our manufacturing populace, who do not labor, upon an average, above four days in a week, unless provisions happen to be very dear ... Put all the necessities of the poor under one denomination; for instance, call them all wheat, or suppose that ... the bushel of wheat shall cost five shillings and that he (a manufacturer) earns a shilling by his labor, he then would be obliged to work five days only in a week. If the bushel of wheat should cost but four shillings, he would be obliged to work but four days; but as wages in this kingdom are much higher in proportion to the price of necessities ... the manufacturer, who labors four days, has a surplus of money to live idle with the rest of the week ... I hope I have said enough to make it appear that the moderate labor of six days in a week is no slavery. Our laboring people do this, and to all appearance are the happiest of all our laboring poor,¹²³ but the Dutch do this in manufactures, and appear to be a very happy people. The French do so, when holidays do not intervene.¹²⁴ But our populace have adopted a notion, that as Englishmen they enjoy a birthright privilege of being more free and independent than in any country in Europe. Now this idea, as far as it may affect the bravery of our troops, may be of some use; but the less the manufacturing poor have of it, certainly the better for themselves and for the State. The laboring people should never think themselves independent of their superiors ... It is extremely dangerous to encourage mobs in a commercial state like ours, where, perhaps, seven parts out of eight of the whole, are people with little or no property. The cure will not be perfect, till our manufacturing poor are contented to labor six days for the same sum which they now earn in four days.”¹²⁵

291:1–292:0 Darauf antwortet der Verfasser des „Essay on Trade and Commerce“:

„Wenn es für eine göttliche Einrichtung gilt, den siebenten Tag der Woche zu feiern, so schließt dies ein, daß die andren Wochentage der Arbeit“ (er meint dem Kapital, wie man gleich sehen wird) „angehören, und es kann nicht grausam gescholten werden, dies Gebot Gottes zu erzwingen ... Daß die Menschheit im allgemeinen von Natur zur Bequemlichkeit und Trägheit neigt, davon machen wir die fatale Erfahrung im Betragen unsres Manufakturpöbels, der durchschnittlich nicht über 4 Tage die Woche arbeitet, außer im Fall einer Teuerung der Lebensmittel ... Gesetz, ein Bushel Weizen repräsentiere alle Lebensmittel des Arbeiters, koste 5 sh., und der Arbeiter verdiene einen Schilling täglich durch seine Arbeit. Dann braucht er bloß 5 Tage in der Woche zu arbeiten; nur 4, wenn der Bushel 4 sh. beträgt ... Da aber der Arbeitslohn in diesem Königreich viel höher steht, verglichen mit dem Preise der Lebensmittel, so besitzt der Manufakturarbeiter, der 4 Tage arbeitet, einen Geldüberschuß, womit er während des Rests der Woche müßig lebt ... Ich hoffe, ich habe genug gesagt, um klarzumachen, daß mäßige Arbeit während 6 Tagen in der Woche keine Sklaverei ist. Unsre Agrikulturarbeiter tun dies und, allem Anscheine nach, sind sie die Glücklichsten unter den Arbeitern (laboring poor),¹²³ aber die Holländer tun es in den Manufakturen und scheinen ein sehr glückliches Volk. Die Franzosen tun es, soweit nicht die vielen Feiertage dazwischenkommen¹²⁴ ... Aber unser Pöbel hat sich die fixe Idee in den Kopf gesetzt, daß ihm als Engländer durch das Recht der Geburt das Privilegium zukommt, freier und unabhängiger zu sein als“ (das Arbeitervolk) „in irgendeinem andren Lande von Europa. Nun, diese Idee, soweit sie auf die Tapferkeit unsrer Soldaten einwirkt, mag von einigem Nutzen sein; aber je weniger die Manufakturarbeiter davon haben, desto besser für sie selbst und den Staat. Arbeiter sollten sich nie für unabhängig von ihren Vorgesetzten (independent of their superiors) halten ... Es ist außerordentlich gefährlich, mobs in einem kommerziellen Staat, wie dem unsrigen, zu encou-
ragieren, wo vielleicht 7 Teile von den 8 der

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¹²³ „An Essay,” etc. He himself relates on p. 96 wherein the “happiness” of the English agricultural laborer already in 1770 consisted. “Their powers are always upon the stretch, they cannot live cheaper than they do, nor work harder.”

¹²⁴ Protestantism, by changing almost all the traditional holidays into workdays, plays an important part in the genesis of capital.

This footnote discussed and mis-interpreted in [Coh80, p. 279:1]. Perhaps make a question out of it.

¹²⁵ „An Essay,” etc., pp. 15, 41, 96, 97, 55, 57.

¹²⁶ I.c., p. 69. Jacob Vanderlint, as early as 1734, declared that the secret of the out-cry of the capitalists as to the laziness of the working people was simply that they claimed for the same wages 6 days’ labor instead of 4.

281:2/o To this end, and for “extirpating idleness debauchery and excess,” promoting a spirit of industry, “lowering the price of labor in our manufactories, and easing the lands of the heavy burden of poor’s rates,” our “faithful Eckart” of capital proposes this approved device: to shut up such laborers as become dependent on public support, in a word, paupers, in “an *ideal workhouse*.” Such ideal workhouse must be made a “House of Terror,” and not an asylum for the poor, “where they are to be plentifully fed, warmly and decently clothed, and where they do but little work.”¹²⁷ In this “House of Terror,” this “ideal workhouse, the poor shall work 14 hours in a day, allowing proper time for meals, in such manner that there shall remain 12 hours of neat-labor.”¹²⁸

¹²⁷ I.c., p. 242.

Gesamtbevölkerung Leute mit wenig oder keinem Eigentum sind¹²⁵ ... Die Kur wird nicht vollständig sein, bis unsre industriellen Armen sich bescheiden, 6 Tage für dieselbe Summe zu arbeiten, die sie nun in 4 Tagen verdienen.“¹²⁶

¹²³ „An Essay etc.“ Er selbst erzählt p. 96, worin schon 1770 „das Glück“ der englischen Agrikulturarbeiter bestand. „Ihre Arbeitskräfte (their working powers) sind stets auf das äußerste angespannt (on the stretch); sie können nicht schlechter leben, als sie tun (they cannot live cheaper than they do), noch härter arbeiten (nor work harder).“

¹²⁴ Der Protestantismus spielt schon durch seine Verwandlung fast aller traditionellen Feiertage in Werkstage eine wichtige Rolle in der Genesis des Kapitals.

¹²⁵ „An Essay etc.“, p. 41, 15, 96, 97, 55, 56, 57.

¹²⁶ I.c. p. 69. Jacob Vanderlint erklärte schon 1734, das Geheimnis der Kapitalistenklage über die Faulenzerei des Arbeitervolks sei einfach, daß sie für denselben Lohn 6 statt 4 Arbeitstage beanspruchten.

292:1 Zu diesem Zwecke, wie zur „Ausrottung der Faulenzerei, Ausschweifung und romantischen Freiheitsduselei“, ditto „zur Minderung der Armentaxe, Förderung des Geistes der Industrie und Herabdrückung des Arbeitspreises in den Manufakturen“, schlägt unser treuer Eckart des Kapitals das probate Mittel vor, solche Arbeiter, die der öffentlichen Wohltätigkeit anheimfallen, in einem Wort, Paupers, einzusperren in ein „ideales Arbeitshaus“ (an ideal Workhouse). „Ein solches Haus muß zu einem Hause des Schreckens (House of Terror) gemacht werden.“¹²⁷ In diesem „Hause des Schreckens“, diesem „Ideal von einem Workhouse“, soll gearbeitet werden „14 Stunden täglich mit Einbegriff jedoch der passenden Mahlzeiten, so daß volle 12 Arbeitsstunden übrigbleiben“¹²⁸

¹²⁷ „An Essay etc.“, p. 242, 243: „Such ideal workhouse must be made a „House of Terror“, und nicht zu einem Asyl für die Armen,

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¹²⁸ I.c. "The French," he says, "laugh at our enthusiastic ideas of liberty." I.c., p. 78.

wo sie reichlich zu essen bekommen, warm und anständig gekleidet werden sollen und sie nur wenig arbeiten."

¹²⁸ „In this ideal workhouse the poor shall work 14 hours in a day, allowing proper time for meals, in such manner that there shall remain 12 hours of neat labor." (I.c. [p. 260.]) „Die Franzosen", sagt er, „lachen über unsre enthusiastischen Ideen von Freiheit." (I.c. p. 78.)

The next two paragraphs constitute the transition to the following section. This workhouse will be realized in a much more terrible form than dreamed up by this bourgeois writer—in the *factory*.

282:1 Twelve working-hours daily in the Ideal Workhouse, in the "House of Terror" of 1770! 63 years later, in 1833, when the English Parliament reduced the working-day for children of 13 to 18, in four branches of industry to 12 full hours, the judgment day of English Industry had dawned! In 1852, when Louis Bonaparte sought to secure his position with the bourgeoisie by tampering with the legal working-day, the French working people cried out with one voice "the law that limits the working-day to 12 hours is the one good that has remained to us of the legislation of the Republic!"¹²⁹ At Zurich the work of children over 10 is limited to 12 hours; in Aargau in 1862, the work of children between 13 and 16 was reduced from 12 1/2 to 12 hours; in Austria in 1860, for children between 14 and 16, the same reduction was made.¹³⁰ "What a progress," since 1770! Macaulay would shout "with exultation"!

293:1 Zwölf Arbeitsstunden täglich im „Ideal-Workhouse“, im Hause des Schreckens von 1770! Dreiundsechzig Jahre später, 1833, als das englische Parlament in vier Fabrikzweigen den Arbeitstag für Kinder von 13 bis 18 Jahren auf 12 volle Arbeitsstunden herabsetzte, schien der Jüngste Tag der englischen Industrie angebrochen! 1852, als L. Bonaparte bürgerlich Fuß zu fassen suchte durch Rütteln am gesetzlichen Arbeitstag, schrie das französische Arbeitervolk aus einem Munde: „Das Gesetz, das den Arbeitstag auf 12 Stunden verkürzt, ist das einzige Gut, das uns von der Gesetzgebung der Republik blieb!"¹²⁹ In Zürich ist die Arbeit von Kindern über 10 Jahren auf 12 Stunden beschränkt; im Aargau wurde 1862 die Arbeit von Kindern zwischen 13 und 16 Jahren von 12 1/2 Stunden reduziert, in Österreich 1860 für Kinder zwischen 14 und 16 Jahren ditto auf 12 Stunden.¹³⁰ Welch ein „Fortschritt seit 1770!", würde Macaulay „mit Exultation" aufjauchzen!

¹²⁹ "They especially objected to work beyond the 12 hours per day, because the law which fixed those hours, is the only good which remains to them of the legislation of the Republic." ("Rep. of Insp. of Fact.", 31 st October, 1856, p. 80.) The French Twelve Hours' Bill of September 5th, 1850, a bourgeois edition of the decree of the Provisional Government of March 2nd, 1848, holds in all workshops without exceptions. Before this law the working-day in France was without definite limit. It lasted in the factories 14, 15, or more hours. See "Des classes ouvrières en France, pendant l'année 1848. Par M. Blanqui." M. Blanqui the economist, not the Revolutionist,

¹²⁹ „Sie widersetzten sich besonders deshalb einer Arbeit von mehr als den 12 Stunden täglich, weil das Gesetz, das diese Stundenzahl festsetzte, das einzige Gut ist, was ihnen von der Gesetzgebung der Republik übrigbleibt." („Rep. of Insp. of Fact. 31st Octob. 1855", p. 80.) Das französische Zwölfstundengesetz vom 5. September 1850, eine verbürgerlichte Ausgabe des Dekrets der provisorischen Regierung vom 2. März 1848, erstreckt sich auf alle Ateliers ohne Unterschied. Vor diesem Gesetz war der Arbeitstag in Frankreich unbeschränkt. Er währte in den Fabriken 14, 15 und mehr Stunden. Siehe „Des classes ouvrières en France, pendant l'année 1848. Par M.

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had been entrusted by the Government with an inquiry into the condition of the working-class.

¹³⁰ Belgium is the model bourgeois state in regard to the regulation of the working-day. Lord Howard of Welden, English Plenipotentiary at Brussels, reports to the Foreign Office May 12th, 1862: “M. Rogier, the minister, informed me that children’s labor is limited neither by a general law nor by any local regulations; that the Government, during the last three years, intended in every session to propose a bill on the subject, but always found an insuperable obstacle in the jealous opposition to any legislation in contradiction with the principle of perfect freedom of labor.”

282:2 The “House of Terror” for paupers of which the capitalistic soul of 1770 only dreamed, was realised a few years later in the shape of a gigantic “Workhouse” for the industrial worker himself. It is called the Factory. And the ideal this time fades before the reality.

Blanqui“. Herr Blanqui, der Ökonom, nicht der Revolutionär, war von Regierung wegen mit der Enquete über die Arbeiterzustände betraut.

¹³⁰ Belgien bewährt sich auch mit Bezug auf die Regulation des Arbeitstags als bürgerlicher Musterstaat. Lord Howard de Walden, englischer Bevollmächtigter in Brüssel, berichtet dem Foreign Office d.d. 12. Mai 1862: „Der Minister Rogier erklärte mir, daß weder ein allgemeines Gesetz noch Lokalregulationen die Kinderarbeit irgendwie beschränken; daß die Regierung sich während der letzten 3 Jahre in jeder Sitzung mit dem Gedanken trug, den Kammern ein Gesetz über den Gegenstand vorzulegen, daß sie aber stets ein unüberwindliches Hindernis fand an der eifersüchtigen Angst gegen irgendwelche Gesetzgebung im Widerspruch mit dem Prinzip vollkommener Freiheit der Arbeit“!

293:2 Das „Haus des Schreckens“ für Paupers, wovon die Kapitaleseele 1770 noch träumte, erhob sich wenige Jahre später als riesiges „Arbeitshaus“ für die Manufakturarbeiter selbst. Es hieß Fabrik. Und diesmal erblaßte das Ideal vor der Wirklichkeit.

10.6. The Struggle around the Normal Working-Day. Compulsory Limitation by Law of the Working Time. The English Factory Acts, 1833–1864

10.6.a. [Industrial Revolution Overturns all Limits of the working-day]

In the centuries before 1766, capital caused a gradual extension of the working day (1) up to the normal maximal bounds (i.e., the labor-time of those workers who had worked less than the norm was made equal to the norm), and (2) to the limits of the natural day of 12 hours during which there is enough daylight. This was a slow process. But since the birth of large-scale industry 1766–1800 a sudden spurt occurred in which all bounds were overturned.

283:1 After capital had taken centuries in extending the working-day to its normal maximum limit, and then beyond this to the limit of the natural day of 12 hours,¹³¹ there followed on the birth of machinism and modern industry in the last third of the 18th century, a violent encroachment like that of an avalanche in its intensity and extent.

294:1 Nachdem das Kapital Jahrhunderte gebraucht, um den Arbeitstag bis zu seinen normalen Maximalgrenzen und dann über diese hinaus, bis zu den Grenzen des natürlichen Tags von 12 Stunden zu verlängern,¹³¹ erfolgte nun, seit der Geburt der großen Industrie im letzten Drittel des 18. Jahrhunderts, eine lawinenartig gewaltsame und maßlose Überstürzung. Jede Schranke

¹³¹ It is certainly much to be regretted that any class of persons should toil 12 hours a day, which, including the time for their meals and for going to and returning from their work, amounts, in fact, to 14 of the 24 hours ... Without entering into the question of health, no one will hesitate, I think, to admit that, *in a moral point of view*, so entire an absorption of the time of the working-classes, without intermission, from the early age of 13, and in trades not subject to restriction, much younger, must be extremely prejudicial, and is an evil greatly to be deplored ... For the sake, therefore, of public morals, of bringing up an orderly population, and of giving the great body of the people a reasonable enjoyment of life, it is much to be desired that in all trades some portion of every working-day should be reserved for rest and leisure.” (Leonard Homer in “Reports of Insp. of Fact. for 31st Dec., 1841.”)

All bounds of morals and nature, age and gender, day and night, were broken down. Even the ideas of day and night, of rustic simplicity in the old statutes, became so confused that an English judge, as late as 1860, needed a quite Talmudic sagacity to explain “judicially” what was day and what was night.¹³² Capital celebrated its orgies.

¹³² See “Judgment of Mr. J. H. Otway, Belfast. Hilary Sessions, County Antrim, 1860.”

The working class which, between 1766 and 1800, had been “stunned by the noise and turmoil of the new mode of production,” begins its resistance around 1800. But for the next 30 years it has only nominal success.

283:2–284:1 As soon as the working-class, stunned at first by the noise and turmoil of the new system of production, recovered, in some measure, its senses, its resistance began, and first in the native land of machinism, in England. For 30 years, however, the concessions conquered by the workpeople were purely nominal. Parliament passed 5 labor Laws between 1802 and 1833, but was shrewd enough not to vote a penny for their carrying out, for the requisite officials, etc.¹³³ They remained a dead letter.

von Sitte und Natur, Alter und Geschlecht, Tag und Nacht, wurde zertrümmert.

¹³¹ „Es ist sicher sehr bedauerlich, daß irgendeine Klasse von Personen 12 Stunden täglich sich abplacken muß. Rechnet man die Mahlzeiten zu und die Zeit, um zu und von der Werkstatt zu gehn, so beträgt dies in der Tat 14 von den 24 Tagesstunden ... Abgesehen von der Gesundheit, wird niemand, ich hoffe, anstehn zuzugeben, daß vom moralischen Gesichtspunkt eine so gänzliche Absorption der Zeit der arbeitenden Klassen, ohne Unterlaß, beim frühen Alter von 13 Jahren, und in den „freien“ Industriezweigen selbst von viel frühem Alter an, außerordentlich schädlich und ein furchtbares Übel ist ... Im Interesse der öffentlichen Moral, für die Aufziehung einer tüchtigen Bevölkerung, und um der großen Masse des Volks einen vernünftigen Lebensgenuß zu verschaffen, muß darauf gedrungen werden, daß in allen Geschäftszweigen ein Teil jedes Arbeitstags reserviert werde für Erholung und Muße.“ (Leonard Horner in „Reports of Insp. of Fact. 31st Dec. 1841“.)

Selbst die Begriffe von Tag und Nacht, bäuerlich einfach in den alten Statuten, verschwammen so sehr, daß ein englischer Richter noch 1860 wahrhaft talmudistischen Scharfsinn aufbieten mußte, um „urteilskräftig“ zu erklären, was Tag und Nacht sei.¹³² Das Kapital feierte seine Orgien.

¹³² Sieh „Judgment of Mr. J. H. Otway, Belfast, Hilary Sessions, County Antrim 1860“.

294:2–295:1 Sobald die vom Produktionslärm übertölpelte Arbeiterklasse wieder einigermaßen zur Besinnung kam, begann ihr Widerstand, zunächst im Geburtsland der großen Industrie, in England. Während drei Dezennien jedoch blieben die von ihr ertrotzten Konzessionen rein nominell. Das Parlament erließ 5 Arbeits-Akte von 1802 bis 1833, war aber so schlau, keinen Pfennig für ihre zwangsmäßige Ausführung, das nötige Beamtenpersonal usw. zu votieren.¹³³ Sie blieben ein toter Buchstabe.

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¹³⁴ Report of Insp. of Fact. 30th April, 1860, p. 50.

↑ The state passes laws which are not enforced. This contradictory activity shows that the state does *not* act here as an agent of the bourgeoisie: it is forced by the proletariat to pass these laws, but due to the power of the capitalists it sabotages them at the same time, by not providing money to enforce them.

“The fact is, that prior to the Act of 1833, young persons and children were worked all night, all day, or both *ad libitum*.”¹³⁴

¹³⁴ „Rep. of Insp. of Fact. 30th April 1860“, p. 50.

„Die Tatsache ist, daß vor dem Akt von 1833 Kinder und junge Personen abgearbeitet wurden (were worked) die ganze Nacht, den ganzen Tag, oder beide *ad libitum*.“¹³⁴

↓ In France, the laws were not only not enforced, but they are also distinguished by their number: only one law was passed regarding the working-day in a society which likes to regulate everything:

¹³³ It is very characteristic of the regime of Louis Philippe, the bourgeois king, that the one Factory Act passed during his reign, that of March 22nd 1841, was never put in force. And this law only dealt with child-labor. It fixed 8 hours a day for children between 8 and 12, 12 hours for children between 12 and 16, etc., with many exceptions which allow night-work even for children 8 years old. The supervision and enforcement of this law are, in a country where every mouse is under police administration, left to the good-will of the *amis du commerce*. Only since 1853, in one single department—the Département du Nord—has a paid government inspector been appointed. Not less characteristic of the development of French society, generally, is the fact, that Louis Philippe’s law stood solitary among the all-embracing mass of French laws, till the Revolution of 1848.

¹³³ Sehr charakteristisch ist es für das Regime Louis-Philippes, des roi bourgeois, daß das einzige unter ihm erlassenen Fabrikgesetz vom 22. März 1841 niemals durchgeführt worden ist. Und dies Gesetz betrifft nur Kinderarbeit. Es setzt 8 Stunden für Kinder zwischen 8 und 12, zwölf Stunden für Kinder zwischen 12 und 16 Jahren usw. fest, mit vielen Ausnahmen, welche die Nachtarbeit selbst für Achtjährige erlauben. Überwachung und Erzwingung des Gesetzes blieben in einem Lande, wo jede Maus polizeilich administriert wird, dem guten Willen der „amis du commerce“ überlassen. Erst seit 1853 gibt es in einem einzigen Departement, dem Departement du Nord, einen bezahlten Regierungsinspektor. Nicht minder charakteristisch für die Entwicklung der französischen Gesellschaft überhaupt ist es, daß Louis-Philippes Gesetz bis zur Revolution von 1848 einzig dastand in der alles umspinnenden französischen Gesetzfabrik!

Question 872 *If the state passes laws protecting the working class which it does not enforce, what does this tell us about the nature of the state?*

10.6.b. [The Factory Act of 1833]

After 30 years of pretenses and stalling, the factory legislation begins in earnest in 1833:

284:2 A normal working-day for modern industry only dates from the Factory Act of 1833, which included cotton, wool, flax, and silk factories. Nothing is more characteristic of the spirit of capital than the history of the English Factory Acts from 1833 to 1864.

284:3 The Act of 1833 declares the ordinary factory working-day to be from half-past five in the morning to half-past eight

295:2 Erst seit dem Fabrikakt von 1833—umfassend Baumwoll-, Woll-, Flachs- und Seidenfabriken—datiert für die moderne Industrie ein Normalarbeitstag. Nichts charakterisiert den Geist des Kapitals besser als die Geschichte der englischen Fabrikgesetzgebung von 1833 bis 1864!

295:3 Das Gesetz von 1833 erklärt, der gewöhnliche Fabrikarbeitstag solle beginnen um halb 6 Uhr morgens und enden halb

10.6. Limitation by Law of the Working Time. Factory Acts 1833–64

in the evening and within these limits, a period of 15 hours, it is lawful to employ young persons (*i.e.*, persons between 13 and 18 years of age), at any time of the day, provided no one individual young person should work more than 12 hours in any one day, except in certain cases especially provided for. The 6th section of the Act provided: “That there shall be allowed in the course of every day not less than one and a half hours for meals to every such person restricted as hereinbefore provided.” The employment of children under 9, with exceptions mentioned later was forbidden; the work of children between 9 and 13 was limited to 8 hours a day, night-work, *i.e.*, according to this Act, work between 8:30 p.m. and 5:30 a.m., was forbidden for all persons between 9 and 18.

9 Uhr abends, und innerhalb dieser Schranken, einer Periode von 15 Stunden, solle es gesetzlich sein, junge Personen (d.h. Personen zwischen 13 und 18 Jahren) zu irgend-einer Zeit des Tags anzuwenden, immer vorausgesetzt, daß ein und dieselbe junge Person nicht mehr als 12 Stunden innerhalb eines Tags arbeite, mit Ausnahme gewisser speziell vorgesehener Fälle. Die 6. Sektion des Akts bestimmt, „daß im Laufe jedes Tags jeder solchen Person von beschränkter Arbeitszeit mindestens 1 1/2 Stunden für Mahlzeiten eingeräumt werden sollen“. Die Anwendung von Kindern unter 9 Jahren, mit später zu erwähnender Ausnahme, ward verboten, die Arbeit der Kinder von 9 bis 13 Jahren auf 8 Stunden täglich beschränkt. Nacharbeit, d.h. nach diesem Gesetz, Arbeit zwischen halb 9 Uhr abends und halb 6 Uhr morgens, ward verboten für alle Personen zwischen 9 und 18 Jahren.

↑↑ Note that the working time for adult workers was not regulated! Since children and adults have to work together, the regulation of child labor contradicts the commitment to leave adult labor unregulated.

284:4–5 The law-makers were so far from wishing to trench on the freedom of capital to exploit adult labor-power, or, as they called it, “the freedom of labor,” that they created a special system in order to prevent the Factory Acts from having such an outrageous consequence.

295:4–296:0 Die Gesetzgeber waren so weit entfernt, die Freiheit des Kapitals in Aussaugung der erwachsenen Arbeitskraft oder, wie sie es nannten, „die Freiheit der Arbeit“ antasten zu wollen, daß sie ein eigenes System ausheckten, um solcher haarsträubenden Konsequenz des Fabrikakts vorzubeugen.

↓ The relay system is an attempt to bridge this contradiction:

“The great evil of the factory system as at present conducted,” says the first report of the Central Board of the Commission of June 28th 1833, “has appeared to us to be that it entails the necessity of continuing the labor of children to the utmost length of that of the adults. The only remedy for this evil, short of the limitation of the labor of adults which would, in our opinion, create an evil greater than that which is sought to be remedied, appears to be the plan of working double sets of children.”

„Das große Übel des Fabriksystems, wie es gegenwärtig eingerichtet ist“, heißt es im ersten Bericht des Zentralrats der Kommission vom 25. Juni 1833, „besteht darin, daß es die Notwendigkeit schafft, die Kinderarbeit zur äußersten Länge des Arbeitstags der Erwachsenen auszudehnen. Das einzige Heilmittel für dies Übel, ohne Beschränkung der Arbeit der Erwachsenen, woraus ein Übel entspringen würde, größer als das, dem vorgebeugt werden soll, scheint der Plan, doppelte Reihen von Kindern zu verwenden.“

284:6 Under the name of System of Relays, such a “plan” was therefore carried out, that, e.g., from 5.30 a.m. until 1.30 in

296:1 Unter dem Namen Relaisystem („System of Relays“; Relay heißt im Englischen wie im Französischen: das Wechseln

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the afternoon, one set of children between 9 and 13, and from 1.30 p.m. to 8.30 in the evening another set were "put to," etc.

284:7-285:1 In order to reward the manufacturers for having, in the most barefaced way, ignored all the Acts as to children's labor passed during the last twenty-two years, the pill was yet further gilded for them. Parliament decreed that after March 1st, 1834, no child under 11, after March 1st 1835, no child under 12, and after March 1st, 1836, no child under 13 was to work more than eight hours in a factory. This "liberalism," so full of consideration for "capital," was the more noteworthy as Dr. Farre, Sir A. Carlisle, Sir B. Brodie, Sir C. Bell, Mr. Guthrie, etc., in a word, the most distinguished physicians and surgeons in London, had declared in their evidence before the House of Commons, that there was danger in delay. Dr. Farre expressed himself still more bluntly: "Legislation is necessary for the prevention of death, in any form in which it can be prematurely inflicted, and certainly this (i.e., the factory method) must be viewed as a most cruel mode of inflicting it."

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285:3 That same "reformed" Parliament, which in its delicate consideration for the manufacturers, condemned children under 13, for years to come, to 72 hours of work per week in the Factory Hell, on the other hand, in the Emancipation Act, which also administered freedom drop by drop, forbade the planters, from the outset, to work any negro slave more than 45 hours a week.

der Postpferde auf verschiedenen Stationen) wurde daher dieser „Plan“ ausgeführt, so daß z.B. von halb 6 Uhr morgens bis halb 2 Uhr nachmittags eine Reihe von Kindern zwischen 9 und 13 Jahren, von halb 2 Uhr nachmittags bis halb 9 Uhr abends eine andere Reihe vorgespannt wird usw.

296:2-3 Zur Belohnung dafür, daß die Herren Fabrikanten alle während der letzten 22 Jahre erlassenen Gesetze über Kinderarbeit aufs frechste ignoriert hatten, ward ihnen jetzt aber auch die Pille vergoldet. Das Parlament bestimmte, daß nach dem 1. März 1834 kein Kind unter 11 Jahren, nach dem 1. März 1835 kein Kind unter 12 Jahren und nach dem 1. März 1836 kein Kind unter 13 Jahren über 8 Stunden in einer Fabrik arbeiten solle! Dieser für das „Kapital“ so schonungsvolle „Liberalismus“ war um so anerkennenswerter, als Dr. Farre, Sir A. Carlisle, Sir B. Brodie, Sir C. Bell, Mr. Guthrie usw., kurz die bedeutendsten physicians und surgeons Londons in ihren Zeugenaussagen vor dem Unterhaus erklärt hatten, daß *periculum in mora*! Dr. Farre drückte sich noch etwas gröber dahin aus: „Gesetzgebung ist gleich notwendig für die Vorbeugung des Todes in allen Formen, worin er vorzeitig angetan werden kann, und sicher dieser“ (der Fabrikmodus) „muß als eine der grausamsten Methoden, ihn anzutun, betrachtet werden.“¹³⁵

¹³⁵ „Legislation is equally necessary for the prevention of death, in any form in which it can be prematurely inflicted, and certainly this must be viewed as a most cruel mode of inflicting it.“

296:4 Dasselbe „reformierte“ Parlament, das aus Zartsinn für die Herrn Fabrikanten Kinder unter 13 Jahren noch jahrelang in die Hölle 72ständiger Fabrikarbeit per Woche festbannte, verbot dagegen in dem Emanzipationsakt, der auch die Freiheit tropfenweise eingab, von vornherein den Pflanzern, irgendeinen Negersklaven länger als 45 Stunden per Woche abzuarbeiten!

10.6.c. [Efforts to Prevent and Circumvent the 1833 Law]

↓ Marx looks at the development in historical perspective. The 1833 law met lots of resistance: between 1833 and 1836 an unsuccessful last-ditch effort of capital to prevent full implementation of the law, and then it was successfully circumvented and gutted by a new “system of relays.”

285:4 But in no wise conciliated, capital now began a noisy agitation that went on for several years.

296:5/o Aber keineswegs gesöhnt, eröffnete das Kapital jetzt eine mehrjährige und geräuschvolle Agitation.

↓ Alleged content of the agitation is the question: who is a child?

It turned chiefly on the age of those who, under the name of children, were limited to 8 hours’ work, and were subject to a certain amount of compulsory education. According to capitalistic anthropology, the age of childhood ended at 10, or at the outside, at 11.

Sie drehte sich hauptsächlich um das Alter der Kategorien, die unter dem Namen Kinder auf 8stündige Arbeit beschränkt und einem gewissen Schulzwang unterworfen worden waren. Nach der kapitalistischen Anthropologie hörte das Kindesalter im 10. oder, wenn es hoch ging, im 11. Jahre auf.

↓ But the intensity of the discussion was governed by the time schedule when the Factory Acts would take full force:

The more nearly the time approached for the coming into full force of the Factory Act, the fatal year 1836, the more wildly raged the mob of manufacturers. They managed, in fact, to intimidate the government to such an extent that in 1835 it proposed to lower the limit of the age of childhood from 13 to 12.

Je näher der Termin der vollen Ausführung des Fabrikakts, das verhängnisvolle Jahr 1836 rückte, um so wilder raste der Fabrikantenmob. Es gelang ihm in der Tat, die Regierung so weit einzuschüchtern, daß sie 1835 den Termin des Kindesalters von 13 auf 12 Jahre herabzusetzen vorschlug.

↓ But the strength of the working class prevented the legislators from caving in:

In the meantime the pressure from without grew more threatening. Courage failed the House of Commons. It refused to throw children of 13 under the Juggernaut Car of capital for more than 8 hours a day, and the Act of 1833 came into full operation. It remained unaltered until June, 1844.

Indes wuchs die pressure from without drohend an. Der Mut versagte dem Unterhause. Es verweigerte, Dreizehnjährige länger als 8 Stunden täglich unter das Juggernaut-Rad des Kapitals zu werfen, und der Akt von 1833 trat in volle Wirkung. Er blieb unverändert bis Juni 1844.

↓ But even with the law in operation the excesses continued—because the “new relais system” made it impossible to enforce these laws.

285:5/o In the ten years during which it regulated factory work, first in part, and then entirely, the official reports of the factory inspectors teem with complaints as to the impossibility of putting the Act into force.

297:1/o Während des Dezenniums, worin er erst teilweise, dann ganz die Fabrikarbeit regulierte, strotzen die offiziellen Berichte der Fabrikinspektoren von Klagen über die Unmöglichkeit seiner Ausführung.

↓ Here are the details why it was impossible to enforce these laws:

As the law of 1833 left it optional with the lords of capital during the 15 hours, from 5.30 a.m. to 8.30 p.m., to make every “young person,” and “every child” begin, break off, resume, or end his 12 or 8 hours at

Da das Gesetz von 1833 es nämlich den Herrn vom Kapital freistellte, in der fünfzehnstündigen Periode von halb 6 Uhr morgens bis halb 9 Uhr abends jede „junge Person“ und jedes „Kind“ zu irgend beliebiger

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any moment they liked, and also permitted them to assign to different persons, different times for meals, these gentlemen soon discovered a new “system of relays,” by which the labor-horses were not changed at fixed stations, but were constantly re-harnessed at changing stations.

Zeit die zwölf-, respektive die achtstündige Arbeit beginnen, unterbrechen, enden zu lassen, und ebenso den verschiedenen Personen verschiedene Stunden der Mahlzeiten anzuweisen, fanden die Herrn bald ein neues „Relaissystem“ aus, wonach die Arbeitspferde nicht an bestimmten Stationen gewechselt, sondern an wechselnden Stationen stets wieder von neuem vorgespannt werden.

↓ This loophole made the whole factory act mute.

We do not pause longer on the beauty of this system, as we shall have to return to it later. But this much is clear at the first glance: that this system annulled the whole Factory Act, not only in the spirit, but in the letter. How could factory inspectors, with this complex bookkeeping in respect to each individual child or young person, enforce the legally determined work-time and the granting of the legal mealtimes? In a great many of the factories, the old brutalities soon blossomed out again unpunished. In an interview with the Home Secretary (1844), the factory inspectors demonstrated the impossibility of any control under the newly invented relay system.¹³⁶

Wir verweilen nicht weiter bei der Schönheit dieses Systems, da wir später darauf zurückkommen müssen. So viel ist aber auf den ersten Blick klar, daß es den ganzen Fabrikakt nicht nur seinem Geist, sondern auch seinem Buchstaben nach aufhob. Wie sollten die Fabrikinspektoren bei dieser komplizierten Buchführung über jedes einzelne Kind und jede junge Person die gesetzlich bestimmte Arbeitszeit und die Gewährung der gesetzlichen Mahlzeiten erzwingen? In einem großen Teil der Fabriken blühte der alte brutale Unfug bald wieder ungestraft auf. In einer Zusammenkunft mit dem Minister des Innern (1844) bewiesen die Fabrikinspektoren die Unmöglichkeit jeder Kontrolle unter dem neuausgeheckten Relaissystem.¹³⁶

¹³⁶ “Rep. of Insp. of Fact.,” 31st October, 1849, p. 6.

¹³⁶ „Rep. of Insp. of Fact. 31st October 1849“, p. 6.

↑ The relays system will be discussed in greater detail in [295:2/op](#).

10.6.d. [The Additional Factory Act from 1844]

↓ Marx gives four points explaining why the next effort, the additional Factory Act of 1844, was more successful:

In the meantime, however, circumstances had greatly changed.

Unterdes hatten sich aber die Umstände sehr geändert.

↓ (1) Votes of the Factory laborers depended on 10-hours bill.

The factory hands, especially since 1838, had made the Ten Hours’ Bill their economic, as they had made the Charter their political, election-cry.

Die Fabrikarbeiter, namentlich seit 1838, hatten die Zehnstundenbill zu ihrem ökonomischen, wie die Charter zu ihrem politischen Wahlauf Ruf gemacht.

↓ (2) Part of the factory owners themselves turned to Parliament against the breach of laws by their competitors.

Some of the manufacturers, even, who had managed their factories in conformity with the Act of 1833, overwhelmed Parliament

Ein Teil der Fabrikanten selbst, der den Fabrikbetrieb dem Akt von 1833 gemäß geregelt hatte, überwarf das Parlament mit

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with memorials on the immoral competition of their false brethren whom greater impudence, or more fortunate local circumstances, enabled to break the law.

Denkschriften über die unsittliche „Konkurrenz“ der „falschen Brüder“, denen größere Frechheit oder glücklichere Lokumstände den Gesetzesbruch erlaubten.

(3) Political leaders of the capitalist class needed the workers as allies against the landowners in their agitation for the repeal of the corn (tariff) laws (landowners favor corn tariffs which guarantee high returns from agriculture).

Moreover, however much the individual manufacturer might give the rein to his old lust for gain, the spokesmen and political leaders of the manufacturing class ordered a change of front and of speech towards the workpeople. They had entered upon the contest for the repeal of the Corn Laws, and needed the workers to help them to victory. They promised therefore, not only a double-sized loaf of bread, but the enactment of the Ten Hours' Bill in the Free-trade millennium.¹³⁷ Thus they still less dared to oppose a measure intended only to make the law of 1833 a reality.

Zudem, wie sehr immerhin der einzelne Fabrikant der alten Raubgier den Zügel frei schießen lassen mochte, die Wortführer und politischen Leiter der Fabrikantenklasse geboten eine veränderte Haltung und veränderte Sprache gegenüber den Arbeitern. Sie hatten den Feldzug zur Abschaffung der Korngesetze eröffnet und bedurften der Hilfe der Arbeiter zum Siege! Sie versprachen daher nicht nur Verdopplung des Laibes Brot, sondern Annahme der Zehnstundenbill unter dem tausendjährigen Reich des Free Trade.¹³⁷ Sie durften also um so weniger eine Maßregel bekämpfen, die nur den Akt von 1833 zur Wahrheit machen sollte.

↓ (4) The land owners unsuccessfully tried to prevent such a coalition by preaching against the “nefarious practices” of the capitalists.

Threatened in their holiest interest, the rent of land, the Tories thundered with philanthropic indignation against the “nefarious practices”¹³⁸ of their foes.

In ihrem heiligsten Interesse, der Grundrente, bedroht, donnerten endlich die Tories entrüstet philanthropisch über die „infamen Praktiken“¹³⁸ ihrer Feinde.

¹³⁷ “Rept. of Insp. of Fact.,” 31st October, 1848, p. 98.

¹³⁷ „Rep. of Insp. of Fact. 31st October 1848“, p. 98.

¹³⁸ Leonard Homer uses the expression “nefarious practices” in his official reports. (“Report of Insp. of Fact.,” 31st October, 1859, p. 7.)

¹³⁸ Übrigens braucht Leonard Horner den Ausdruck „nefarious practices“ offiziell. „Reports of Insp. of Fact. 31st October 1859“, p. 7.)

↓ The additional Factory Act from 1844 plugged the loopholes with the “spurious relay system,” further shortened work time for children and, importantly, for the first time included adults—not adult men but adult women.

286:1–287:1 This was the origin of the additional Factory Act of June 7th, 1844. It came into effect on September 10th, 1844.

298:1–2 So kam der zusätzliche Fabrikakt vom 7. Juni 1844 zustande. Er trat am 10. September 1844 in Wirkung.

↓ (1) It includes also women, who were placed on the same footing as young persons. This is an important inroad, since previously, the regulation of the working-days of adult persons had been considered an infringement into their “freedom of contracts.”

It places under protection a new category of workers, viz., the women over 18. They were placed in every respect on the same footing as the young persons, their work-

Er gruppiert eine neue Kategorie von Arbeitern unter die Beschützten, nämlich die Frauenzimmer über 18 Jahre. Sie wurden in jeder Rücksicht den jungen Personen

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time limited to twelve hours, their night-labor forbidden, etc. For the first time, legislation saw itself compelled to control directly and officially the labor of adults. In the Factory Report of 1844–1845, it is said with irony:

“No instances have come to my knowledge of adult women having expressed any regret at their *rights* being thus far interfered with.”¹³⁹

¹³⁹ “Rept.,” etc., 30th Sept., 1844, p. 15.

(2) Children’s labor was shortened to 6 1/2 or 7 hours. However here one regressive provision (mentioned by Marx in 288:1): minimum age for children reduced from 9 to 8 “in order to get an additional supply of factory children.”

In order to get rid of the abuses of the “spurious relay system” it was practically prohibited to spread the working-day out for children and young persons.

287:2 The working time of children under 13 was reduced to 6 1/2, and in certain circumstances to 7 hours a day.¹⁴⁰

¹⁴⁰ The Act allows children to be employed for 10 hours if they do not work day after day, but only on alternate days. In the main, this clause remained inoperative.

287:3–6 To get rid of the abuses of the “spurious relay system,” the law established besides others the following important regulations:

“That the hours of work of children and young persons shall be reckoned from the time when any child or young person shall begin to work in the morning.”

So that if *A*, e.g., begins work at 8 in the morning, and *B* at 10, *B*’s work-day must nevertheless end at the same hour as *A*’s. “The time shall be regulated by a public clock,” for example, the nearest railway clock, by which the factory clock is to be set. The occupier is to hang up a “legible” printed notice stating the hours for the beginning and ending of work and the times allowed for the several meals.

↓ But shift work is still possible:

Children beginning work before 12 noon may not be again employed after 1 p.m. The afternoon shift must therefore consist

gleichgesetzt, ihre Arbeitszeit auf 12 Stunden beschränkt, Nachtarbeit ihnen untersagt usw. Zum erstenmal sah sich die Gesetzgebung also gezwungen, auch die Arbeit Volljähriger direkt und offiziell zu kontrollieren. In dem Fabrikbericht von 1844/1845 heißt es ironisch:

„Es ist kein einziger Fall zu unsrer Kenntnis gekommen, wo erwachsne Weiber sich über diesen Eingriff in ihre Rechte beschwert hätten.“¹³⁹

¹³⁹ „Rep. etc. for 30th Sept. 1844“, p. 15.

298:3 Die Arbeit von Kindern unter 13 Jahren wurde auf 6 1/2 und, unter gewissen Bedingungen, 7 Stunden täglich reduziert.¹⁴⁰

¹⁴⁰ Der Akt erlaubt, Kinder 10 Stunden anzuwenden, wenn sie nicht Tag nach Tag, sondern nur einen Tag über den andren arbeiten. Im ganzen blieb diese Klausel wirkungslos.

298:4–299:2 Um die Mißbräuche des falschen „Relaisystems“ zu beseitigen, traf das Gesetz u.a. folgende wichtige Detailbestimmungen:

„Der Arbeitstag für Kinder und junge Personen ist von der Zeit an zu zählen, wo irgend ein Kind oder eine junge Person des Morgens in der Fabrik zu arbeiten anfängt.“

So daß, wenn *A* z.B. um 8 Uhr morgens die Arbeit beginnt und *B* um 10 Uhr, der Arbeitstag dennoch für *B* zur selben Stunde enden muß wie für *A*. Der Anfang des Arbeitstags soll angezeigt werden durch eine öffentliche Uhr, z.B. die nächste Eisenbahnuhr, wonach die Fabrikglocke zu richten. Der Fabrikant hat eine großgedruckte Notiz in der Fabrik aufzuhängen, worin Anfang, Ende, Pausen des Arbeitstags angegeben sind.

Kinder, die ihre Arbeit des Vormittags vor 12 Uhr beginnen, dürfen nicht wieder nach 1 Uhr mittags verwandt werden. Die Nach-

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of other children than those employed in the morning.

⇓ Very detailed regulations concerning the meal times, but the manufacturers still tried to get around them, see 291:2–3.

Of the hour and a half for meal-times, “one hour thereof at the least shall be given before three of the clock in the afternoon ... and at the same period of the day. No child or young person shall be employed more than five hours before 1 p.m. without an interval for meal-time of at least 30 minutes. No child or young person [or female] shall be employed or allowed to remain in any room in which any manufacturing process is then [*i.e.*, at mealtimes] carried on,” etc.

Interesting theoretical comment: Parliamentary laws not invented or derived from some abstract set of human rights, but the content of these laws gradually emerged from the nature of the mode of production (Marx calls them “natural laws of the modern mode of production”). Their formulation and official recognition is the effect of a long class struggle.

287:7/o It has been seen that these minutiae, which, with military uniformity, regulate by stroke of the clock the times, limits, pauses of the work were not at all the products of Parliamentary fancy. They developed gradually out of circumstances as natural laws of the modern mode of production. Their formulation, official recognition, and proclamation by the State, were the result of a long struggle of classes.

⇓ An apparently unintended consequence (since it was no longer possible to have young persons and children around for 15 hours) was also the working-day for adult workers was, for all practical matters, shortened to 12 hours.

One of their first consequences was that in practice the working-day of the adult males in factories became subject to the same limitations, since in most processes of production the co-operation of the children, young persons, and women is indispensable. On the whole, therefore, during the period from 1844 to 1847, the 12 hours’ working-day became general and uniform in all branches of industry under the Factory Act.

⇓ At the end, Marx mentions the one regressive provision of the Act:

288:1 The manufacturers, however, did not allow this “progress” without a compen-

mittagsreihe muß also aus andren Kindern bestehn als die Vormittagsreihe.

Die 1 1/2 Stunden für Mahlzeit müssen allen beschützten Arbeitern zu denselben Tagesperioden eingeräumt werden, eine Stunde wenigstens vor 3 Uhr nachmittags. Kinder oder junge Personen dürfen nicht länger als 5 Stunden vor 1 Uhr mittags verwandt werden, ohne eine mindestens halbstündige Pause für Mahlzeit. Kinder, junge Personen oder Frauenzimmer dürfen während keiner Mahlzeit in einer Fabrikstube bleiben, worin irgendein Arbeitsprozeß vorgeht usw.

299:3 Man hat gesehn: Diese minutiösen Bestimmungen, welche die Periode, Grenzen, Pausen der Arbeit so militärisch uniform nach dem Glockenschlag regeln, waren keineswegs Produkte parlamentarischer Hirnweberei. Sie entwickelten sich allmählich aus den Verhältnissen heraus, als Naturgesetze der modernen Produktionsweise. Ihre Formulierung, offizielle Anerkennung und staatliche Proklamation waren Ergebnis langwieriger Klassenkämpfe.

Eine ihrer nächsten Folgen war, daß die Praxis auch den Arbeitstag der erwachsenen männlichen Fabrikarbeiter denselben Schranken unterwarf, da in den meisten Produktionsprozessen die Kooperation der Kinder, jungen Personen und Frauenzimmer unentbehrlich. Im großen und ganzen galt daher während der Periode von 1844–1847 der zwölfstündige Arbeitstag allgemein und uniform in allen der Fabrikgesetzgebung unterworfenen Industriezweigen.

299:4 Die Fabrikanten erlaubten diesen „Fortschritt“ jedoch nicht ohne einen kom-

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sating “retrogression.” At their instigation the House of Commons reduced the minimum age for exploitable children from 9 to 8, in order to assure that additional supply of factory children which is due to capitalists, according to divine and human law.¹⁴¹

¹⁴¹ “As a reduction in their hours of work would cause a larger number (of children) to be employed, it was thought that the additional supply of children from 8 to 9 years of age would meet the increased demand” (l.c., p. 13).

pensierenden „Rückschritt“. Auf ihren Antrieb reduzierte das Unterhaus das Minimalalter der zu verarbeitenden Kinder von 9 Jahren auf 8, zur Sicherung der dem Kapital von Gott und Rechts wegen geschuldeten „additionellen Fabrikkindenzufuhr“¹⁴¹.

¹⁴¹ „Da eine Herabsetzung ihrer Arbeitszeit zur Einstellung einer großen Anzahl“ (von Kindern) „führen würde, dachte man, daß die zusätzliche Zufuhr von Kindern im Alter von 8 und 9 Jahren die vermehrte Nachfrage decken würde.“ (l.c. p. 13.)

Under this law, the working day for children was limited to 7 hours, and that for adults to 12 hours. But the basis was laid to reach the proclaimed goal of the period, the 10-hour working day.

10.6.e. [Failed Attempts to Prevent the 1848 Ten-Hour Law]

↓ In 1846/47, several movements came together making possible a great leap forward in factory legislation.

288:2 The years 1846–47 are epoch-making in the economic history of England.

300:1 Die Jahre 1846/1847 machen Epoche in der ökonomischen Geschichte Englands.

↓ Corn laws repealed

The Repeal of the Corn Laws, and of the duties on cotton and other raw material; Free-trade proclaimed as the guiding star of legislation; in a word, the arrival of the millenium.

Widerruf der Korngesetze, die Einfuhrzölle auf Baumwolle und andre Rohmaterialien abgeschafft, der Freihandel zum Leitstern der Gesetzgebung erklärt! Kurz, das tausendjährige Reich brach an.

↓ Climax of Chartist movement.

On the other hand, in the same years, the Chartist movement and the 10 hours’ agitation reached their highest point.

Andrerseits erreichten in denselben Jahren Chartistenbewegung und Zehnstundenagitation ihren Höhepunkt.

↓ Tories angry at the manufacturers because of the repeal of the Corn Laws, allied with the Chartists.

They found allies in the Tories panting for revenge.

Sie fanden Bundesgenossen in den rache-schnaubenden Tories.

↓ Why did the Free-traders not keep their word?

Despite the fanatical opposition of the army of perjured Free-traders, with Bright and Cobden at their head, the Ten Hours’ Bill, struggled for so long, went through Parliament.

Trotz des fanatischen Widerstands des wortbrüchigen Freihandelsheers mit Bright und Cobden an der Spitze ging die so lang erstrebte Zehnstundenbill durch das Parlament.

↑ Therefore the law of 1847 was enacted. ↓ It shortens the working-day of young persons and female laborers to 11 hours in 1847 and 10 hours in 1848.

288:3 The new Factory Act of June 8th, 1847, enacted that on July 1st, 1847, there should be a preliminary shortening of the

300:2 Der neue Fabrikakt vom 8. Juni 1847 setzte fest, daß am 1. Juli 1847 eine vorläufige Verkürzung des Arbeitstags

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working-day for “young persons” (from 13 to 18), and all females to 11 hours, but that on May 1st, 1848, there should be a definite limitation of the working-day to 10 hours. In other respects, the Act only amended and completed the Acts of 1833 and 1844.

der „jungen Personen“ (von 13 bis 18 Jahren) und aller Arbeiterinnen auf 11 Stunden, am 1. Mai 1848 aber die definitive Beschränkung auf 10 Stunden eintreten sollte. Im übrigen war der Akt nur ein amendierender Zusatz der Gesetze von 1833 und 1844.

This progress was so fast that capital strongly resisted. Capital’s resistance has two prongs. The present subsection discusses what Marx calls the “preliminary” campaign, in which capital tried to prevent the full enactment of the 10-hour bill in 1848, and the next subsection discusses their attempts to repeal the Act after its enactment.

288:4–289:0 Capital now entered upon a preliminary campaign in order to hinder the Act from coming into full force on May 1st, 1848. And the workers themselves, allegedly wisened up by experience, were to help in the destruction of their own work.

300:3–4 Das Kapital unternahm einen vorläufigen Feldzug, um die volle Ausführung des Akts am 1. Mai 1848 zu verhindern. Und zwar sollten die Arbeiter selbst, angeblich durch die Erfahrung gewitzigt, ihr eignes Werk wieder zerstören helfen.

How were they able to enlist the workers to fight against their interests?

↓ (1) Favorable exterior circumstances: crisis of 1846/47:

The moment was cleverly chosen.

Der Augenblick war geschickt gewählt.

“It must be remembered, too, that there has been more than two years of great suffering (in consequence of the terrible crisis of 1846–47) among the factory operatives, from many mills having worked short time, and many being altogether closed. A considerable number of the operatives must therefore be in very narrow circumstances many, it is to be feared, in debt; so that it might fairly have been presumed that at the present time they would prefer working the longer time, in order to make up for past losses, perhaps to pay off debts, or get their furniture out of pawn, or replace that sold, or to get a new supply of clothes for themselves and their families.”¹⁴²

„Man muß sich erinnern, daß infolge der furchtbaren Krise von 1846/1847 großes Leid unter den Fabrikarbeitern vorherrschte, da viele Fabriken nur für kurze Zeit gearbeitet, andere ganz stillgestanden hatten. Eine beträchtliche Anzahl der Arbeiter befand sich daher in drückendster Lage, viele in Schulden. Man konnte daher mit ziemlicher Gewißheit annehmen, daß sie die längere Arbeitszeit vorziehen würden, um die vergangnen Verluste gutzumachen, vielleicht Schulden abzuzahlen oder ihre Möbel aus dem Pfandhaus zu holen oder verkaufte Habseligkeiten zu ersetzen oder neue Kleidungsstücke sich selbst und ihren Familien zu verschaffen.“¹⁴²

¹⁴² “Rep. of Insp. of Fact.,” 31st Oct., 1848, p. 16.

¹⁴² „Rep. of Insp. of Fact. 31st Oct. 1848“, p. 16.

(2) Cut in wages after repeal of the Corn Laws:

289:1 The manufacturers tried to aggravate the natural effect of these circumstances by a general reduction of wages by 10%. This was done so to say, to celebrate the inauguration of the new Free-trade era. Then followed a further reduction of 8 1/3% as soon as the working-day was shortened to 11, and a reduction of double that amount as soon as it was finally shortened to 10 hours. Wherever, therefore, circumstances allowed it, a reduction of wages of at least 25% took

300:5/o Die Herrn Fabrikanten suchten die natürliche Wirkung dieser Umstände zu steigern durch eine allgemeine Lohnherabsetzung von 10%. Dies geschah sozusagen zur Einweihungsfeier der neuen Freihandelsära. Dann folgte weitere Herabsetzung um 8 1/3%, sobald der Arbeitstag auf 11, und um das Doppelte, sobald er definitiv auf 10 Stunden verkürzt wurde. Wo es daher irgendwie die Verhältnisse zuließen, fand eine Lohnherabsetzung von wenigstens 25%

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place.¹⁴³

¹⁴³ “I found that men who had been getting 10s. a week, had had 1 s. taken off for a reduction in the rate of 10 per cent, and 1 s. 6 d. off the remaining 9s. for the reduction in time, together 2s. 6d., and notwithstanding this, many of them said they would rather work 10 hours.” l.c.

↓ Capitalists tried to use these favorable circumstances to enlist the workers in their propaganda against the Ten Hour Bill. But they didn’t succeed:

Under such favourably prepared conditions the agitation among the factory workers for the repeal of the Act of 1847 was begun. Neither lies, bribery, nor threats were spared in this attempt. But all was in vain.

↓ Petitions: petitioners testified that they were forced.

Concerning the half-dozen petitions in which workpeople were made to complain of “their oppression by the Act,” the petitioners themselves declared under oral examination, that their signatures had been extorted from them. “They felt themselves oppressed, but not exactly by the Factory Act.”¹⁴⁴

¹⁴⁴ “‘Though I signed it [the petition], I said at the time I was putting my hand to a wrong thing.’ ‘Then why did you put your hand to it?’ ‘Because I should have been turned off if I had refused.’ Whence it would appear that this petitioner felt himself ‘oppressed,’ but not exactly by the Factory Act.” l.c., p. 102.

↓ Press campaign to denounce the factory inspectors:

But if the manufacturers did not succeed in making the workpeople speak as they wished, they themselves shrieked all the louder in press and Parliament in the name of the workpeople. They denounced the Factory Inspectors as a kind of revolutionary commissioners like those of the French National Convention ruthlessly sacrificing the unhappy factory workers to their humanitarian crotchet. This manoeuvre also failed. Factory Inspector Leonard Homer conducted in his own person, and through his sub-inspectors, many examinations of witnesses in the factories of Lancashire. About 70% of the workpeople examined de-

statt.¹⁴³

¹⁴³ „Ich fand, daß man Leuten, die 10 sh. wöchentlich erhalten hatten, 1 sh. abzog auf Rechnung der allgemeinen Lohnherabsetzung von 10% und weitere 1 sh. 6 d. für die Zeitverkürzung, zusammen 2 sh. 6 d., und trotz alledem hielt die Mehrzahl fest an der Zehnstundenbill.“ (l.c.)

Unter so günstig vorbereiteten Chancen begann man die Agitation unter den Arbeitern für Widerruf des Akts von 1847. Kein Mittel des Betrugs, der Verführung und der Drohung wurde dabei verschmäht, aber alles umsonst.

Mit Bezug auf das halbe Dutzend Petitionen, worin die Arbeiter klagen mußten über „ihre Unterdrückung durch den Akt“, erklärten die Bittsteller selbst, bei mündlichem Verhör, ihre Unterschriften seien abgenötigt worden. „Sie seien unterdrückt, aber von jemand anders als dem Fabrikakt.“¹⁴⁴

¹⁴⁴ „Als ich die Petition unterzeichnete, erklärte ich zugleich, ich tue damit etwas Schlechtes.—Warum habt ihr sie denn unterzeichnet?—Weil man mich im Weigerungsfalle auf das Pflaster geworfen hätte.—Der Bittsteller fühlte sich in der Tat „unterdrückt“, aber nicht grade durch den Fabrikakt.“ (l.c. p. 102.)

Wenn es aber den Fabrikanten nicht gelang, die Arbeiter in ihrem Sinn sprechen zu machen, schrien sie selbst nur um so lauter in Presse und Parlament im Namen der Arbeiter. Sie denunzierten die Fabrikinspektoren als eine Art Konvents-kommissäre, die ihrer Weltverbesserungsgrille den unglücklichen Arbeiter unbarmherzig aufopfert. Auch dies Manöver schlug fehl. Fabrikinspektor Leonard Horner stellte in eigener Person und durch seine Unterinspektoren zahlreiche Zeugenverhöre in den Fabriken Lancshires an. Ungefähr 70% der verhörten Arbeiter erklärten sich für 10 Stunden, eine viel geringere Prozentzahl für 11 und eine

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clared in favour of 10 hours, a much smaller percentage in favour of 11, and an altogether insignificant minority for the old 12 hours.¹⁴⁵

¹⁴⁵ p. 17, l.c. In Mr. Homer's district 10,270 adult male laborers were thus examined in 181 factories. Their evidence is to be found in the appendix to the Factory Reports for the half-year ending October 1848. These examinations furnish valuable material in other connexions also.

↓ They forced the workers to work longer and then expected them to say it was voluntary:

290:1–2 Another "friendly" dodge was to make the adult males work 12 to 15 hours, and then to blazon abroad this fact as the best proof of what the proletariat desired in its heart of hearts. But the "ruthless" Factory Inspector Leonard Homer was again to the fore. The majority of the "over-times" declared:

"They would much prefer working ten hours for less wages, but that they had no choice; that so many were out of employment (so many spinners getting very low wages by having to work as piecers, being unable to do better), that if they refused to work the longer time, others would immediately get their places, so that it was a question with them of agreeing to work the longer time, or of being thrown out of employment altogether."¹⁴⁶

¹⁴⁶ l.c. See the evidence collected by Leonard Homer himself, Nos. 69, 70, 71, 72, 92, 93, and that collected by Sub-Inspector A., Nos. 51, 52, 58, 59, 62, 70, of the Appendix. One manufacturer, too, tells the plain truth. See No. 14, and No. 265, l.c.

ganz unbedeutende Minorität für die alten 12 Stunden.¹⁴⁵

¹⁴⁵ l.c. p. 17. In Herrn Horners Distrikt wurden so 10 270 erwachsne männliche Arbeiter in 181 Fabriken verhört. Man findet ihre Aussagen im Appendix des Fabrikreports für das Halbjahr endend Oktober 1848. Diese Zeugenverhöre bieten auch in andrer Beziehung schätzbares Material.

301:1–2 Ein andres „gütliches“ Manöver war, die erwachsenen männlichen Arbeiter 12 bis 15 Stunden arbeiten zu lassen und dann diese Tatsache für den besten Ausdruck der proletarischen Herzenswünsche zu erklären. Aber der „unbarmherzige“ Fabrikinspektor Leonard Horner war wieder an Ort und Stelle. Die meisten „Überstündigen“ sagten aus,

„sie würden es bei weitem vorziehen, 10 Stunden für geringen Arbeitslohn zu arbeiten, aber sie hätten keine Wahl; so viele von ihnen seien arbeitslos, so viele Spinner gezwungen, als bloße piecers zu arbeiten, daß, wenn sie die längre Arbeitszeit verweigerten, andre sofort ihre Stellen einnehmen würden, so daß die Frage so für sie stehe: entweder die längre Zeit arbeiten oder auf dem Pflaster liegen.“¹⁴⁶

¹⁴⁶ l.c. Siehe die von Leonard Horner selbst gesammelten Aussagen Nr. 69, 70, 71, 72, 92, 93 und die von Subinspektor A. gesammelten Nr. 51, 52, 58, 59, 62, 70 des „Appendix“. Ein Fabrikant schenkte selbst klaren Wein ein. Siehe Nr. 14 nach Nr. 265 l.c.

10.6.f. [Victorious Revolt of Capital against 10 Hours Bill]

290:3 The preliminary campaign of capital thus came to grief, and the Ten Hours' Act came into force May 1st, 1848.

But the further development of the exterior circumstances created the conditions for a backlash:

(1) Fiasco of Chartist Party.

But meanwhile the fiasco of the Chartist party whose leaders were imprisoned, and whose organisation was dismembered, had

302:1 Der vorläufige Feldzug des Kapitals war mißglückt, und das Zehnstundengesetz trat am 1. Mai 1848 in Kraft.

Unterdes hatte jedoch das Fiasko der Chartistenpartei, deren Führer eingekerkert und deren Organisation zersprengt, bereits das

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shaken the confidence of the English working-class in its own strength.

↓ (2) Defeat of June insurrection in Paris.

Soon after this the June insurrection in Paris and its bloody suppression united, in England as on the Continent, all fractions of the ruling classes, landlords and capitalists, stock-exchange wolves and shop-keepers, Protectionists and Free traders, government and opposition, priests and freethinkers, young whores and old nuns, under the common cry for the salvation of Property, Religion, the Family and Society.

↓ (3) General anti-working-class sentiments:

The working-class was everywhere proclaimed, placed under a ban, under a virtual law of suspects.

↓ These circumstances allowed a victorious open revolt of the capitalists against the 10 hours bill and the other legislative regulation of the working-day.

The manufacturers had no need any longer to restrain themselves. They broke out in open revolt not only against the Ten Hours' Act, but against the whole of the legislation that since 1833 had aimed at restricting in some measure the "free" exploitation of labor-power. It was a pro-slavery rebellion in miniature, carried on for over two years with a cynical recklessness, a terrorist energy all the cheaper because the rebel capitalist risked nothing except the skin of his "hands."

↓ Achilles heel of the existing legislation is that (1) male adults are not regulated, and (2) the legal day during which the work had to be performed was still 15 hours.

290:4/o To understand that which follows we must remember that the Factory Acts of 1833, 1844, and 1847 were all three in force so far as the one did not amend the other: that not one of these limited the working-day of the male worker over 18, and that since 1833 the 15 hours from 5.30 a.m. to 8.30 p.m. had remained the legal "day," within the limits of which at first the 12, and later the 10 hours' labor of young persons and women had to be performed under the prescribed conditions.

Selbstvertrauen der englischen Arbeiterklasse erschüttert.

Bald darauf vereinigte die Pariser Juni-Insurrektion und ihre blutige Erstickung, wie im kontinentalen Europa so in England, alle Fraktionen der herrschenden Klassen, Grundeigentümer und Kapitalisten, Börsenwölfe und Krämer, Protektionisten und Freihändler, Regierung und Opposition, Pfaffen und Freigeister, junge Huren und alte Nonnen, unter dem gemeinschaftlichen Ruf zur Rettung des Eigentums, der Religion, der Familie, der Gesellschaft!

Die Arbeiterklasse wurde überall verfehmt, in den Bann getan, unter das „loi des suspects“ gestellt.

Der Herr Fabrikanten brauchten sich also nicht zu genieren. Sie brachen in offene Revolte aus nicht nur wider das Zehnstundengesetz, sondern wider die ganze Gesetzgebung, welche seit 1833 die „freie“ Aus-saugung der Arbeitskraft einigermaßen zu zügeln suchte. Es war eine Proslavery Rebellion in Miniatur, während mehr als zwei Jahren durchgeführt mit zynischer Rücksichtslosigkeit, mit terroristischer Energie, beide um so wohlfeiler, als der rebellische Kapitalist nichts riskierte außer der Haut Arbeiter.

302:2 Zum Verständnis des Nachfolgenden muß man sich erinnern, daß die Fabrikakte von 1833, 1844 und 1847 alle drei in Rechtskraft, soweit der eine nicht den andern amendiert; daß keiner derselben den Arbeitstag des männlichen Arbeiters über 18 Jahre beschränkt und daß seit 1833 die fünfzehnstündige Periode von halb 6 Uhr morgens bis halb 9 Uhr abends der gesetzliche „Tag“ blieb, innerhalb dessen erst die zwölf- später die zehnstündige Arbeit der jungen Personen und Frauenzimmer unter

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den vorgeschriebnen Bedingungen zu verrichten war.

Question 873 *Why were male workers not protected by the laws?*

(1) In order to take advantage of this, factory owners discharge many women and children and re-institute night labor for men.

291:1 The manufacturers began by here and there discharging a part of, in many cases half of the young persons and women employed by them, and then, for the adult males, restoring the almost obsolete night-work. The Ten Hours' Act, they cried, leaves no other alternative.¹⁴⁷

¹⁴⁷ Reports, etc., for 31st October, 1848, pp. 133, 134.

(2) Meal times were now given outside the 10-hour day:

291:2–3 Their second step dealt with the legal pauses for meals. Let us hear the Factory Inspectors.

“Since the restriction of the hours of work to ten, the factory occupiers maintain, although they have not yet practically gone the whole length, that supposing the hours of work to be from 9 a.m. to 7 p.m. they fulfil the provisions of the statutes by allowing an hour before 9 a.m. and half an hour after 7 p.m. [for meals]. In some cases they now allow an hour, or half an hour for dinner, insisting at the same time, that they are not bound to allow any part of the hour and a half in the course of the factory working-day.”¹⁴⁸

¹⁴⁸ Reports, etc., for 30th April, 1848, p. 47.

291:4–5 The manufacturers maintained therefore that the scrupulously strict provisions of the Act of 1844 with regard to meal-times only gave the operatives permission to eat and drink before coming into, and after leaving the factory—i.e., at home. And why should not the workpeople eat their dinner before 9 in the morning? The crown lawyers, however, decided that the prescribed meal-times

302:3 Die Fabrikanten begannen hie und da mit Entlassung eines Theils, manchmal der Hälfte, der von ihnen beschäftigten jungen Personen und Arbeiterinnen und stellten dagegen die fast verschollne Nacharbeit unter den Erwachsenen wieder her. Das Zehnstundengesetz, riefen sie, lasse ihnen keine andre Alternative!¹⁴⁷

¹⁴⁷ „Reports etc. for 31st October 1848“, p. 133, 134.

302:4–303:0 Der zweite Schritt bezog sich auf die gesetzlichen Pausen für Mahlzeiten. Hören wir die Fabrikinspektoren.

„Seit der Beschränkung der Arbeitsstunden auf 10 behaupten die Fabrikanten, obgleich sie praktisch ihre Ansicht noch nicht bis zur letzten Konsequenz durchführen, daß, wenn z.B. von 9 Uhr morgens bis 7 Uhr abends gearbeitet wird, sie den gesetzlichen Vorschriften genug tun, indem sie eine Stunde für Mahlzeit vor 9 Uhr morgens und eine halbe Stunde nach 7 Uhr abends, also 1 1/2 Stunden für Mahlzeiten geben. In einigen Fällen erlauben sie jetzt eine halbe oder ganze Stunde für Mittagessen, bestehn aber zugleich darauf, sie seien durchaus nicht verpflichtet, irgendeinen Teil der 1 1/2 Stunden im Lauf des zehnstündigen Arbeitstags einzuräumen.“¹⁴⁸

¹⁴⁸ „Reports etc. for 30th April 1848“, p. 47.

303:1–2 Die Herrn Fabrikanten behaupteten also, die peinlich genauen Bestimmungen des Akts von 1844 über Mahlzeiten gäben den Arbeitern nur die Erlaubnis, vor ihrem Eintritt in die Fabrik und nach ihrem Austritt aus der Fabrik, also bei sich zu Hause, zu essen und zu trinken! Und warum sollten die Arbeiter auch nicht vor 9 Uhr morgens ihr Mittagessen einnehmen? Die Kronjuristen entschieden jedoch, daß die vorgeschriebnen Mahlzeiten

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“must be in the interval during the working-hours, and that it will not be lawful to work for 10 hours continuously, from 9 a.m. to 7 p.m., without any interval.”¹⁴⁹

¹⁴⁹ Reports, etc., for 31st October, 1848, p. 130.

(3) The real revolt begins with the stretching-out of the work times for the children:

291:6 After these pleasant demonstrations, Capital preluded its revolt by a step which agreed with the letter of the law of 1844, and was therefore legal.

291:7–292:1 The Act of 1844 certainly prohibited the employment after 1 p.m. of such children, from 8 to 13, as had been employed before noon. But it did not regulate in any way the 6 1/2 hours’ work of the children whose work-time began at 12 midday or later. Children of 8 might, if they began work at noon, be employed from 12 to 1, 1 hour; from 2 to 4 in the afternoon, 2 hours; from 5 to 8.30 in the evening, 3 1/2 hours; in all, the legal 6 1/2 hours. Or better still. In order to make their work coincide with that of the adult male laborers up to 8.30 p.m., the manufacturers only had to give them no work till 2 in the afternoon, they could then keep them in the factory without intermission till 8.30 in the evening.

“And it is now expressly admitted that the practice exists in England from the desire of mill-owners to have their machinery at work for more than 10 hours a-day, to keep the children at work with male adults after all the young persons and women have left, and until 8.30 p.m. if the factory-owners choose.”¹⁵⁰

¹⁵⁰ Reports, etc., l.c., p. 142.

292:2 Workmen and factory inspectors protested on hygienic and moral grounds, but Capital answered:

„in Pausen während des wirklichen Arbeitstags gegeben werden müssen und daß es ungesetzlich, 10 Stunden nacheinander von 9 Uhr morgens bis 7 Uhr abends ohne Unterbrechung arbeiten zu lassen“.¹⁴⁹

¹⁴⁹ „Reports etc. for 31st Oct. 1848“, p. 130.

303:3 Nach diesen gemütlichen Demonstrationen leitete das Kapital seine Revolte ein durch einen Schritt, der dem Buchstaben des Gesetzes von 1844 entsprach, also legal war.

303:4–304:0 Das Gesetz von 1844 verbot allerdings, Kinder von 8 bis 13 Jahren, die vor 12 Uhr vormittags beschäftigt würden, wieder nach 1 Uhr mittags zu beschäftigen. Aber es regelte in keiner Weise die 6 1/2stündige Arbeit der Kinder, deren Arbeitszeit um 12 Uhr vormittags oder später begann! Achtjährige Kinder konnten daher, wenn sie die Arbeit um 12 Uhr vormittags begannen, von 12 bis 1 Uhr verwandt werden, 1 Stunde; von 2 Uhr bis 4 Uhr nachmittags, 2 Stunden, und von 5 Uhr bis halb 9 Uhr abends, 3 1/2 Stunden; alles in allem die gesetzlichen 6 1/2 Stunden! Oder noch besser. Um ihre Verwendung der Arbeit erwachsener männlicher Arbeiter bis halb 9 Uhr abends anzupassen, brauchten ihnen die Fabrikanten kein Werk zu geben vor 2 Uhr nachmittags und konnten sie dann ununterbrochen in der Fabrik halten bis halb 9 Uhr abends!

„Und es wird jetzt ausdrücklich zugestanden, daß neuerdings infolge der Fabrikantengier, ihre Maschinerie länger als 10 Stunden laufen zu lassen, sich die Praxis in England eingeschlichen hat, acht- bis dreizehnjährige Kinder beiderlei Geschlechts nach Entfernung aller jungen Personen und Weiber aus der Fabrik allein mit den erwachsenen Männern bis halb 9 Uhr abends arbeiten zu lassen.“¹⁵⁰

¹⁵⁰ „Reports etc.“, l.c. p. 142.

304:1–2 Arbeiter und Fabrikinspektoren protestierten aus hygienischen und moralischen Gründen. Aber das Kapital antwortete:

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“My deeds upon my head! I crave the law,
The penalty and forfeit of my bond.”

292:3 In fact, according to statistics laid before the House of Commons on July 26th, 1850, in spite of all protests, on July 15th, 1850, 3,742 children were subjected to this “practice” in 257 factories.¹⁵¹

¹⁵¹ Reports etc., for 31st October, 1850, pp. 5, 6.

„Meine Taten auf mein Haupt! Mein Recht verlang’ ich!

Die Buße und Verpfändung meines Scheins!“

304:3–4 In der Tat waren nach statistischer Vorlage an das Unterhaus vom 26. Juli 1850, trotz aller Proteste, am 15. Juli 1850 3732 Kinder in 257 Fabriken dieser „Praxis“ unterworfen.¹⁵¹

¹⁵¹ „Reports etc. for 31st Oct. 1850“, p. 5, 6.

(4) Another trick: children’s breaks in the afternoons were not regulated.

Still, this was not enough. The lynx eye of Capital discovered that the Act of 1844 did not allow 5 hours’ work before mid-day without a pause of at least 30 minutes for refreshment, but prescribed nothing of the kind for work after mid-day. Therefore, it claimed and obtained the enjoyment not only of making children of 8 drudge without intermission from 2 to 8.30 p.m., but also of making them hunger during that time.

“Ay, his heart.
So says the bond.”

↓ Footnote 152 has an important remark:

¹⁵² The nature of capital remains the same in its developed as in its undeveloped form. In the code which the influence of the slave-owners, shortly before the outbreak of the American Civil War, imposed on the territory of New Mexico, it is said that the laborer, in as much as the capitalist has bought his labor-power, “is his (the capitalist’s) money.” The same view was current among the Roman patricians. The money they had advanced to the plebeian debtor had been transformed via the means of subsistence into the flesh and blood of the debtor. This “flesh and blood” were, therefore, “their money.” Hence, the Shylock-law of the Ten Tables. Linguet’s hypothesis that the patrician creditors from time to time prepared, beyond the Tiber, banquets of debtors’ flesh, may remain as undecided as that of Daumer on the Christian Eucharist.

Noch nicht genug! Das Luchsauge des Kapitals entdeckte, daß der Akt von 1844 fünfstündige Arbeit des Vormittags nicht ohne Pause von wenigstens 30 Minuten für Erfrischung erlaubt, aber nichts der Art für die Nachmittagsarbeit vorschreibt. Es verlangte und ertrotzte daher den Genuß, achtjährige Arbeiterkinder unausgesetzt von 2 bis halb 9 Uhr abends nicht nur schansen, sondern auch hungern zu lassen!

„Ja, die Brust,
So sagt der Schein.“¹⁵²

¹⁵² Die Natur des Kapitals bleibt dieselbe, in seinen unentwickelten, wie in seinen entwickelten Formen. In dem Gesetzbuch, das der Einfluß der Sklavenhalter kurz vor Ausbruch des Amerikanischen Bürgerkriegs dem Territorium von New-Mexico aufherrschte, heißt es: der Arbeiter, soweit der Kapitalist seine Arbeitskraft gekauft hat, „ist sein (des Kapitalisten) Geld“. („The laborer is his (the capitalist’s) money.“) Dieselbe Anschauung war gangbar bei den römischen Patriziern. Das Geld, das sie dem plebejischen Schuldner vorgeschossen, hatte sich vermittelst seiner Lebensmittel in Fleisch und Blut des Schuldners verwandelt. Dies „Fleisch und Blut“ war daher „ihr Geld“. Daher das Shylocksche Gesetz der 10 Tafeln! Linguets Hypothese, daß die patrizischen Gläubiger von Zeit zu Zeit jenseits der Tiber Festschmäuse in gekochtem Schuldnerfleisch veranstalteten, bleibe ebenso dahingestellt wie Daumers Hypothese über das christliche Abendmahl.

(5) From following the Laws to the letter to open efforts to abolish the Laws:

292:4/op This Shylock-clinging to the letter of the law of 1844, so far as it regulated children’s labor, was but to lead up

304:5–305:1 Die Shylocksche Festklammer am Buchstaben des Gesetzes von 1844, soweit es die Kinderarbeit regelt, soll-

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to an open revolt against the same law, so far as it regulated the labor of “young persons and women.” It will be remembered that the abolition of the “false relay system” was the chief aim and object of that law. The masters began their revolt with the simple declaration that the sections of the Act of 1844 which prohibited the *ad libitum* use of young persons and women in such short fractions of the day of 15 hours as the employer chose, were

“comparatively harmless” so long as the work-time was fixed at 12 hours. But under the Ten Hours’ Act they were a “grievous hardship.”¹⁵³

¹⁵³ Reports, etc., for 31st Oct., 1848, p. 133.

They informed the inspectors in the coolest manner that they should place themselves above the letter of the law, and re-introduce the old system on their own account.¹⁵⁴ They were acting in the interests of the ill-advised operatives themselves,

“in order to be able to pay them higher wages.” “This was the only possible plan by which to maintain, under the Ten Hours’ Act, the industrial supremacy of Great Britain.”¹⁵⁵ “Perhaps it may be a little difficult to detect irregularities under the relay system; but what of that? Is the great manufacturing interest of this country to be treated as a secondary matter in order to save some little trouble to Inspectors and Sub-Inspectors of Factories?”¹⁵⁶

¹⁵⁴ Thus, among others, Philanthropist Ashworth to Leonard Horner, in a disgusting Quaker letter. (Reports, etc., April, 1849, p. 4.)

¹⁵⁵ Reports etc. for 31st Oct. 1848, p. 138.

¹⁵⁶ I.c., p. 140.

(6) Storm of petitions by the factory-owners against suits of the Factory Inspectors.

293:2–3 All these shifts naturally were of no avail. The Factory Inspectors appealed to the Law Courts. But soon such a cloud of dust in the way of petitions from the masters overwhelmed the Home Secretary, Sir

te jedoch nur die offene Revolte gegen dasselbe Gesetz vermitteln, soweit es die Arbeit von „jungen Personen und Frauenzimmern“ regelt. Man erinnert sich, daß die Abschaffung des „falschen Relaisystems“ Hauptzweck und Hauptinhalt jenes Gesetzes bildet. Die Fabrikanten eröffneten ihre Revolte mit der einfachen Erklärung, die Sektionen des Akts von 1844, welche beliebigen Nießbrauch der jungen Personen und Frauenzimmer in beliebigen kürzeren Abschnitten des fünfzehnstündigen Fabriktags verbieten, seien

„vergleichungsweise harmlose (comparatively harmless) geblieben, solange die Arbeitszeit auf 12 Stunden eingeschränkt war. Unter dem Zehnstundengesetz seien sie eine unerträgliche Unbill (hardship)“.¹⁵³

¹⁵³ „Report etc. for 31st Oct. 1848“, p. 133.

305:2–3 Sie zeigten daher den Inspektoren in der kühnsten Weise an, daß sie sich über den Buchstaben des Gesetzes hinwegsetzen und das alte System auf eigene Faust wieder einführen würden.¹⁵⁴ Es geschehe im Interesse der übelberatnen Arbeiter selbst,

„um ihnen höhere Löhne zahlen zu können“. „Es sei der einzig mögliche Plan, um unter dem Zehnstundengesetz die industrielle Suprematie Großbritanniens zu erhalten.“¹⁵⁵ „Es möge schwer sein, Unregelmäßigkeiten unter dem Relaisystem zu entdecken, aber was heiße das? (what of that?) Soll das große Fabrikinteresse dieses Landes als ein sekundäres Ding behandelt werden, um den Fabrikinspektoren und Subinspektoren ein bißchen mehr Mühe (some little trouble) zu sparen?“¹⁵⁶

¹⁵⁴ So unter andren Philanthrop Ashworth in einem quäkerhaft widrigen Brief an Leonard Horner. „Rep. Apr. 1849“, p. 4.)

¹⁵⁵ „Reports etc. for 31st Oct. 1848“, p. 138.

¹⁵⁶ I.c. p. 140.

305:2 Alle diese Flausen halfen natürlich nichts. Die Fabrikinspektoren schritten gerichtlich ein. Bald aber überschüttete eine solche Staubwolke von Fabrikantenpetitionen den Minister des Innern, Sir George

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George Grey, that in a circular of August 5th, 1848, he recommends the inspectors not

“to lay informations against mill-owners for a breach of the letter of the Act, or for employment of young persons by relays in cases in which there is no reason to believe that such young persons have been actually employed for a longer period than that sanctioned by law.”

Grey, daß er in einem Zirkular vom 5. August 1848 die Inspektoren anwies,

„im allgemeinen nicht einzuschreiten wegen Verletzung des Buchstabens des Akts, so oft das Relaisystem nicht erwiesenermaßen mißbraucht werde, um junge Personen und Frauenzimmer über 10 Stunden arbeiten zu lassen“.

⇓ At least in Scotland, these petitions were successful:

Hereupon, Factory Inspector J. Stuart allowed the so-called relay system during the 15 hours of the factory day throughout Scotland, where it soon flourished again as of old. The English Factory Inspectors, on the other hand, declared that the Home Secretary had no power dictatorially to suspend the law, and continued their legal proceedings against the pro-slavery rebellion.

305:3 Hierauf erlaubte Fabrikinspektor J. Stuart das sogenannte Ablösungssystem während der fünfzehnstündigen Periode des Fabriktags in ganz Schottland, wo es bald wieder in alter Weise aufblühte. Die englischen Fabrikinspektoren dagegen erklärten, der Minister besitze keine diktatorische Gewalt zur Suspension der Gesetze, und fuhrten mit gerichtlicher Prozedur wider die Proslavery-Rebellen fort.

(7) The courts were a farce, blurring the distinction between legal and illegal:

293:5–294:1 But what was the good of summoning the capitalists when the Courts in this case the country magistrates—Cobbett’s “Great Unpaid”—acquitted them? In these tribunals, the masters sat in judgment on themselves An example. One Eskrigge, cotton-spinner, of the firm of Kershaw, Leese, & Co., had laid before the Factory Inspector of his district the scheme of a relay system intended for his mill. Receiving a refusal, he at first kept quiet. A few months later, an individual named Robinson, also a cotton-spinner, and if not his Man Friday, at all events related to Eskrigge, appeared before the borough magistrates of Stockport on a charge of introducing the identical plan of relays invented by Eskrigge. Four Justices sat, among them three cottonspinners, at their head this same inevitable Eskrigge. Eskrigge acquitted Robinson, and now was of opinion that what was right for Robinson was fair for Eskrigge. Supported by his own legal decision, he introduced the system at once into his own factory.¹⁵⁸ Of course, the composition of this tribunal was in itself a violation of the law.¹⁵⁹

306:1–2 Wozu jedoch alle Ladung vors Gericht, sobald die Gerichte, die county magistrates¹⁵⁷, freisprachen? In diesen Gerichten saßen die Herrn Farikanten über sich selbst zu Gericht. Ein Beispiel. Ein gewisser Eskrigge, Baumwollspinner von der Firma Kershaw, Leese et Co., hatte dem Fabrikinspektor seines Distrikts das Schema eines für seine Fabrik bestimmten Relaisystems vorgelegt. Abschlägig beschieden, verhielt er sich zunächst passiv. Wenige Monate später stand ein Individuum namens Robinson, ebenfalls Baumwollspinner, und wenn nicht der Freitag, so jedenfalls der Verwandte des Eskrigge, vor den Borough Justices zu Stockport, wegen Einführung des identischen, von Eskrigge ausgeheckten Relaisplans. Es saßen 4 Richter, darunter 3 Baumwollspinner, an ihrer Spitze derselbe unvermeidliche Eskrigge. Eskrigge sprach den Robinson frei und erklärte nun, was dem Robinson recht, sei dem Eskrigge billig. Auf seine eigne rechtskräftige Entscheidung gestützt, führte er sofort das System in seiner eignen Fabrik ein.¹⁵⁸ Allerdings war schon die Zusammensetzung

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These judicial farces, exclaims Inspector Howell, “urgently call for a remedy—either that the law should be so altered as to be made to conform to these decisions, or that it should be administered by a less fallible tribunal, whose decisions would conform to the law ... when these cases are brought forward. I long for a stipendiary magistrate.”¹⁶⁰

¹⁵⁷ Diese ‘county magistrates’, the ‘great unpaid’, as William Cobbett described them, are unpaid judges chosen from the most eminent people in each county. They constitute in fact the patrimonial jurisdiction of the ruling classes.

¹⁵⁸ Reports, etc., for 30th April, 1849, pp. 21, 22. Cf like examples *ibid.*, pp. 4, 5.

¹⁵⁹ By I. and II. Will. IV., ch. 24, s. 10, known as Sir John Wobhouse’s Factory Act, it was forbidden to any owner of a cotton-spinning or weaving mill, or the father, son, or brother of such owner, to act as Justice of the Peace in any inquiries that concerned the Factory Act.

¹⁶⁰ *l.c.*

(8) Therefore even Leonard Horner says that due to the relay system the Factory Acts are unenforcable:

294:2–3 The crown lawyers declared the masters’ interpretation of the Act of 1848 absurd. But the Saviours of Society would not allow themselves to be turned from their purpose. Leonard Homer reports,

“Having endeavoured to enforce the Act ... by ten prosecutions in seven magisterial divisions, and having been supported by the magistrates in one case only ... I considered it useless to prosecute more for this evasion of the law. That part of the Act of 1848 which was framed for securing uniformity in the hours of work, ... is thus no longer in force in my district (Lancashire). Neither have the sub-inspectors or myself any means of satisfying ourselves, when we inspect a mill working by shifts, that the young persons and women are not working more than 10 hours a-day ... In a return of the 30th April, ... of millowners working by shifts, the number amounts to 114, and has been for some time rapidly increasing. In general, the time of working the mill is ex-

dieser Gerichte eine offene Verletzung des Gesetzes.¹⁵⁹

„Diese Art gerichtlicher Farcen“, ruft Inspektor Howell aus, „schreien nach einem Heilmittel ... entweder paßt das Gesetz diesen Urtheilssprüchen an, oder laßt es verwalten durch ein minder fehlbares Tribunal, das seine Entscheidungen dem Gesetz anpaßt ... in allen solchen Fällen. Wie sehnt man sich nach einem bezahlten Richter!“¹⁶⁰

¹⁵⁷ Diese „county magistrates“, die „great unpaid“, wie W. Cobbett sie nennt, sind eine Art unbezahlter Friedensrichter, aus den Honoratioren der Grafschaften gebildet. Sie bilden in der Tat die Patrimonialgerichte der herrschenden Klassen.

¹⁵⁸ „Reports etc. for 30th April 1849“, p. 21, 22. Vgl. ähnliche Beispiele, *ibid.*, p. 4, 5.

¹⁵⁹ Durch 1 und 2 W[illia]m IV., c. 29, s. 10, bekannt als Sir John Hobhouse’s Factory Act, wird verboten, daß irgendein Besitzer einer Baumwollspinnerei oder Weberei oder Vater, Sohn und Bruder eines solchen Besitzers in Fragen, die den Factory Act betreffen, als Friedensrichter funktionieren.

¹⁶⁰ „Reports etc. for 30th April 1849“ [p. 22].

306:2–307:0 Die Kronjuristen erklärten die Fabrikanten-Interpretation des Aktes von 1848 für abgeschmackt, aber die Gesellschaftsretter ließen sich nicht beirren.

„Nachdem ich“, berichtet Leonard Horner, „durch 10 Verfolgungen in 7 verschiedenen Gerichtsbezirken versucht habe, das Gesetz zu erzwingen und nur in einem Fall von den Magistraten unterstützt wurde, ... halte ich weitere Verfolgung wegen Umgehung des Gesetzes für nutzlos. Der Teil des Akts, der verfaßt wurde, um Uniformität in den Arbeitsstunden zu schaffen, ... existiert nicht mehr in Lancashire. Auch besitze ich mit meinen Unteragenten durchaus kein Mittel, uns zu versichern, daß Fabriken, wo sog. Relaisystem herrscht, junge Personen und Frauenzimmer nicht über 10 Stunden beschäftigen ... Ende April 1849 arbeiteten schon 114 Fabriken in meinem Distrikt nach dieser Methode, und ihre Anzahl nimmt in der letzten Zeit reißend zu. Im allge-

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tended to 13 1/2 hours' from 6 a.m. to 7 1/2 p.m., ... in some instances it amounts to 15 hours, from 5 1/2 a.m. to 8 1/2 p.m."¹⁶¹

¹⁶¹ Reports, etc., for 30th April, 1849, p. 5.

294:4–295:1 Already, in December, 1848, Leonard Horner had a list of 65 manufacturers and 29 overlookers who unanimously declared that no system of supervision could, under this relay system, prevent enormous over-work.¹⁶² Now, the same children and young persons were shifted from the spinning-room to the weaving-room, now, during 15 hours, from one factory to another.¹⁶³ How was it possible to control a system which,

“under the guise of relays, is some one of the many plans for shuffling ‘the hands’ about in endless variety, and shifting the hours of work and of rest for different individuals throughout the day, so that you may never have one complete set of hands working together in the same room at the same time.”¹⁶⁴

¹⁶² Reports, etc., for 31st October, 1849, p. 6.

¹⁶³ Reports, etc., for 30th April, 1849, p. 21.

¹⁶⁴ Reports, etc., for 31st October, 1848, p. 95.

(9) More detailed look at the relay system:

295:2/op But altogether independently of actual over-work, this so-called relay system was an offspring of capitalistic fantasy, such as Fourier, in his humorous sketches of “Courses Séances,” has never surpassed, except that the “attraction of labor” was changed into the attraction of capital. Look, for example, at those schemes of the masters which the “respectable” press praised as models of “what a reasonable degree of care and method can accomplish.” The *personnel* of the workpeople was sometimes divided into from 12 to 14 categories, which themselves constantly changed and recharged their constituent parts. During the 15 hours of the factory day, capital dragged in the laborer now for 30 minutes, now for an hour, and then pushed him out again, to drag him into the factory and to thrust him

meinen arbeiten sie jetzt 13 1/2 Stunden, von 6 Uhr morgens bis halb 8 Uhr abends; in einigen Fällen 15 Stunden von halb 6 Uhr morgens bis halb 9 Uhr abends.“¹⁶¹

¹⁶¹ „Reports etc. for 30th April 1849“, p. 5.

307:1–2 Schon Dezember 1848 besaß Leonard Horner eine Liste von 65 Fabrikanten und 29 Fabrikaufsehern, die einstimmig erklärten, kein System der Oberaufsicht könne unter diesem Relaisystem die intensivste Überarbeit verhindern.¹⁶² Bald wurden dieselben Kinder und jungen Personen aus der Spinnstube in die Webestube usw., bald, während 15 Stunden, aus einer Fabrik in die andre geschoben (shifted).¹⁶³ Wie ein System kontrollieren,

„welches das Wort Ablösung mißbraucht, um die Hände in endloser Mannigfaltigkeit wie Karten durcheinanderzumischen und die Stunden der Arbeit und der Rast für die verschiedenen Individuen täglich so zu verschieben, daß ein und dasselbe vollständige Assortiment von Händen niemals an demselben Platze zur selben Zeit zusammenwirkt“!¹⁶⁴

¹⁶² „Rep. etc. for 31st Oct. 1849“, p. 6.

¹⁶³ „Rep. etc. for 30th April 1849“, p. 21.

¹⁶⁴ „Rep. etc. 31st Oct. 1848“, p. 95.

307:3/o Aber ganz abgesehen von wirklicher Überarbeitung, war dies sog. Relaisystem eine Ausgeburt der Kapitalphantasie, wie sie Fourier in seinen humoristischen Skizzen der „coursées séances“ nie übertroffen hat, nur daß die Attraktion der Arbeit verwandelt war in die Attraktion des Kapitals. Man sehe sich jene Fabrikantenschemata an, welche die gute Presse pries als Muster von dem, „was ein vernünftiger Grad von Sorgfalt und Methode ausrichten kann“ (what a reasonable degree of care and method can accomplish“). Das Arbeiterpersonal wurde manchmal in 12 bis 15 Kategorien verteilt, die selbst wieder ihre Bestandteile beständig wechselten. Während der fünfzehnstündigen Periode des Fabriktags zog das Kapital den Arbeiter jetzt für 30 Minuten, jetzt für eine Stunde an und stieß ihn

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out afresh, hounding him hither and thither, in scattered shreds of time, without ever losing hold of him until the full 10 hours' work was done.

⇓ Comparison with stage.

As on the stage, the same persons had to appear in turns in the different scenes of the different acts. But as an actor during the whole course of the play belongs to the stage, so the operatives, during 15 hours, belonged to the factory, without reckoning the time for going and coming.

⇓ What did the workers do in the (unpaid) long breaks during the day?

Thus the hours of rest were turned into hours of enforced idleness, which drove the youths to the pot-house, and the girls to the brothel. At every new trick that the capitalist, from day to day, hit upon for keeping his machinery going 12 or 15 hours without increasing the number of his hands, the worker had to swallow his meals now in this fragment of time, now in that.

⇓ Manufacturers steal from the laborers, contradicting the propaganda against the corn laws.

At the time of the 10 hours' agitation, the masters cried out that the working mob petitioned in the hope of obtaining 12 hours' wages for 10 hours' work. Now they reversed the medal. They paid 10 hours' wages for 12 or 15 hours' lordship over labor-power.¹⁶⁵ This was the gist of the matter, this the masters' interpretation of the 10 hours' law! These were the same unctuous Free-traders, perspiring with the love of humanity, who for full 10 years, during the Anti-Corn Law agitation, had preached to the operatives, by a reckoning of pounds, shillings, and pence, that with free importation of corn, and with the means possessed by English industry, 10 hours' labor would be quite enough to enrich the capitalists.¹⁶⁶

dann wieder ab, um ihn von neuem in die Fabrik zu ziehn und aus der Fabrik zu stoßen, ihn hin und her hetzend in zerstreuten Zeitfetzen, ohne je den Halt auf ihn zu verlieren, bis die zehnstündige Arbeit vollgemacht.

Wie auf der Bühne hatten dieselben Personen abwechselnd in den verschiedenen Szenen der verschiedenen Akte aufzutreten. Aber wie ein Schauspieler während der ganzen Dauer des Dramas der Bühne gehört, so gehörten die Arbeiter jetzt während 15 Stunden der Fabrik, nicht eingerechnet die Zeit, um von und zu ihr zu gehn.

Die Stunden der Rast verwandelten sich so in Stunden erzwungenen Müßiggangs, welche den jungen Arbeiter in die Kneipe und die junge Arbeiterin in das Bordell trieben. Bei jedem neuen Einfall, den der Kapitalist täglich ausheckte, um seine Maschine ohne Vermehrung des Arbeiterpersonals 12 oder 15 Stunden im Gang zu halten, hatte der Arbeiter bald in diesem Stück Zeitabfall, bald in jenem seine Mahlzeit einzuschlucken.

Zur Zeit der Zehnstundenagitation schrien die Fabrikanten, das Arbeiterpack petitioniere, in der Erwartung, zwölfstündigen Arbeitslohn für zehnstündige Arbeit zu erhalten. Sie hatten jetzt die Medaille umgekehrt. Sie zahlten zehnstündigen Arbeitslohn für zwölf- und fünfzehnstündige Verfügung über die Arbeitskräfte!¹⁶⁵ Dies war des Pudels Kern, dies die Fabrikantenausgabe des Zehnstundengesetzes! Es waren dieselben salbungsvollen, Menschenliebe triefenden Freihändler, die den Arbeitern 10 volle Jahre, während der Anti-Corn-Law-Agitation, auf Heller und Pfennig vorgerechnet, daß bei freier Korneinfuhr eine zehnstündige Arbeit, mit den Mitteln der englischen Industrie, vollständig genüge, um die Kapitalisten zu bereichern.¹⁶⁶

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¹⁶⁵ See Reports, etc., for 30th April, 1849, p. 6, and the detailed explanation of the “shifting system,” by Factory Inspectors Howell and Saunders, in “Reports, etc., for 31st October, 1848.” See also the petition to the Queen from the clergy of Ashton and vicinity, in the spring of 1849, against the shift system.”

¹⁶⁶ Cf. for example, ‘The Factory Question and the Ten Hours’ Bill’, By R. H. Greg, 1837.

⇓ Victory: court declares Factory Act meaningless:

296:0p This revolt of capital, after two years was at last crowned with victory by a decision of one of the four highest Courts of Justice in England, the Court of Exchequer, which in a case brought before it on February 8th, 1850, decided that the manufacturers were certainly acting against the sense of the Act of 1844, but that this Act itself contained certain words that rendered it meaningless. “By this decision, the Ten Hours’ Act was abolished.”¹⁶⁷ A crowd of masters, who until then had been afraid of using the relay system for young persons and women, now took it up heart and soul.¹⁶⁸

¹⁶⁷ F. Engels: ‘The English Ten Hours’ Bill.’ (In the “Neue Rheinische Zeitung. Politisch-ökonomische Revue.” Edited by K. Marx. April number, 1850, p. 13.) The same “high” Court of Justice discovered, during the American Civil War, a verbal ambiguity which exactly reversed the meaning of the law against the arming of pirate ships.

¹⁶⁸ Rep., etc., for 30th April, 1850.

¹⁶⁵ Siehe „Reports etc. for 30th April 1849“, p. 6, und die weitläufige Auseinandersetzung des „shifting system“ durch die Fabrikinspektoren Howell und Saunders in „Reports etc. for 31st Oct. 1848“. Siehe auch die Petition der Geistlichkeit von Ashton und Nachbarschaft, Frühling 1849, an die Königin, gegen das „shift system“.

¹⁶⁶ Vgl. z.B. „The Factory Question and the Ten Hours Bill“, von R. H. Greg, 1837.

308:1 Die zweijährige Kapitalrevolte wurde endlich gekrönt durch den Urteilsspruch eines der vier höchsten Gerichtshöfe von England, des Court of Exchequer, der in einem vor ihn gebrachten Fall am 8. Februar 1850 entschied, daß die Fabrikanten zwar wider den Sinn des Akts von 1844 handelten, dieser Akt selbst aber gewisse Worte enthalte, die ihn sinnlos machten. „Mit dieser Entscheidung war das Zehnstundengesetz abgeschafft.“¹⁶⁷ Eine Masse Fabrikanten, die bisher noch das Relaisystem für junge Personen und Arbeiterinnen gescheut, griffen nun mit beiden Händen zu.¹⁶⁸

¹⁶⁷ F. Engels, „Die englische Zehnstundenbill“ (in der von mir herausgegebenen „Neuen Rh. Zeitung. Politisch-ökonomische Revue“, Aprilheft 1850, [mecw]). Derselbe „hohe“ Gerichtshof entdeckte ebenfalls während des amerikanischen Bürgerkriegs eine Wortschraube, die das Gesetz gegen Ausrüstung von Piratenschiffen ins direkte Gegenteil verkehrt.

¹⁶⁸ „Rep. etc. for 30th April 1850.“

10.6.g. [Growing Resistance of the Proletariat]

⇓ This victory turned working class resistance from passive to active:

296:1–297:1 But on this apparently decisive victory of capital, followed at once a revulsion. The workpeople had hitherto offered a passive, although inflexible and unremitting resistance. They now protested in Lancashire and Yorkshire in threatening meetings. The pretended Ten Hours’ Act was thus simple humbug, parliamentary cheating, had never existed! The Factory Inspectors urgently warned the Government that the antagonism of classes had arrived at

309:1–3 Mit diesem scheinbar definitiven Sieg des Kapitals trat aber sofort ein Umschlag ein. Die Arbeiter hatten bisher passiven, obgleich unbeugsamen und täglich erneuten Widerstand geleistet. Sie protestierten jetzt in laut drohenden Meetings in Lancashire und Yorkshire. Das angebliche Zehnstundengesetz sei also bloßer humbug, parlamentarische Prellerei, und habe nie existiert! Die Fabrikinspektoren warnen dringend die Regierung, der Klassenant-

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an incredible tension.

agonismus sei zu einer unglaublichen Höhe gespannt.

↓ Even some capitalists dissatisfied. Small capitalists do not have enough workers for the relay system.

Some of the masters themselves murmured:

Ein Teil der Fabrikanten selbst murrte:

“On account of the contradictory decisions of the magistrates, a condition of things altogether abnormal and anarchical obtains. One law holds in Yorkshire, another in Lancashire, one law in one parish of Lancashire, another in its immediate neighbourhood. The manufacturer in large towns could evade the law, the manufacturer in country districts could not find the people necessary for the relay system, still less for the shifting of hands from one factory to another,” etc.

„Durch die widersprechenden Entscheidungen der Magistrate herrsche ein ganz abnormer und anarchischer Zustand. Ein andres Gesetz gelte in Yorkschire, ein andres in Lancashire, ein andres Gesetz in einer Pfarrei von Lancashire, ein andres in ihrer unmittelbaren Nachbarschaft. Der Fabrikant in großen Städten könne das Gesetz umgehen, der in Landflecken finde nicht das nötige Personal für das Relais-system und noch minder zur Verschiebung der Arbeiter aus einer Fabrik in die andre usw.“

And equal exploitation of labor-power by all capitalists is the first human right of capital.

Und gleiche Exploitation der Arbeitskraft ist das erste Menschenrecht des Kapitals.

↑ “Human right” is a pun. It does not mean the right of capital as a human being, but the rights to exploit the human proletarians claimed by capital.

Question 874 What did Marx mean by the statement: “equal exploitation of labor-power by all capitalists is the first human right of capital?”

↓ Compromise in the additional Factory Act of 1850; working time for young persons and women lengthened during the week but shortened on Saturdays so that the average is 10 hours. All work must go on between 6 am and 6 pm, which meant the end of the relais system. The drawbacks of this law will be discussed shortly!

297:2 Under these circumstances a compromise between masters and men was effected that received the seal of Parliament in the additional Factory Act of August 5th, 1850. The working-day for “young persons and women,” was raised from 10 to 10 1/2 hours for the first five days of the week, and shortened to 7 1/2 on the Saturday. The work was to go on between 6 a.m. and 6 p.m.,¹⁶⁹ with pauses of not less than 1 1/2 hours for meal-times, these meal-times to be allowed at one and the same time for all, and conformably to the conditions of 1844. By this an end was put to the relay system once for all.¹⁷⁰ For children’s labor, the Act of 1844 remained in force.

309:4 Unter diesen Umständen kam es zu einem Kompromiß zwischen Fabrikanten und Arbeitern, der in dem neuen zusätzlichen Fabrikakt vom 5. August 1850 parlamentarisch besiegelt ist. Für „junge Personen und Frauenzimmer“ wurde der Arbeitstag in den ersten 5 Wochentagen von 10 auf 10 1/2 Stunden erhöht, für den Samstag auf 7 1/2 Stunden beschränkt. Die Arbeit muß in der Periode von 6 Uhr morgens bis 6 Uhr abends vorgehn,¹⁶⁹ mit 1 1/2 stündigen Pausen für Mahlzeiten, die gleichzeitig und gemäß den Bestimmungen von 1844 einzuräumen sind usw. Damit war dem Relais-system ein für allemal ein Ende gemacht.¹⁷⁰ Für die Kinderarbeit blieb das Gesetz von 1844 in Kraft.

¹⁶⁹ In winter, from 7 a.m. to 7 p.m. may be substituted.

¹⁶⁹ Im Winter kann die Periode zwischen 7 Uhr morgens und 7 Uhr abends an die Stellen treten.

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¹⁷⁰ “The present law (of 1850) was a compromise whereby the employed surrendered the benefit of the Ten Hours’ Act for the advantage of one uniform period for the commencement and termination of the labor of those whose labor is restricted.” (Reports, etc., for 30th April, 1852, p. 14.)

↓ Exception for silk weavers:

297:3–299:1 One set of masters, this time as before, secured to itself special seigniorial rights over the children of the proletariat. These were the silk manufacturers. In 1833 they had howled out in threatening fashion, “if the liberty of working children of any age for 10 hours a day were taken away, it would stop their works.”¹⁷¹ It would be impossible for them to buy a sufficient number of children over 13. They extorted the privilege they desired. The pretext was shown on subsequent investigation to be a deliberate lie. It did not, however, prevent them, during 10 years, from spinning silk 10 hours a day out of the blood of little children who had to be placed upon stools for the performance of their work.¹⁷² The Act of 1844 certainly “robbed” them of the “liberty” of employing children under 11 longer than 6 1/2 hours a day. But it secured to them, on the other hand, the privilege of working children between 11 and 13, 10 hours a day, and of annulling in their case the education made compulsory for all other factory children. This time the pretext was

“the delicate texture of the fabric in which they were employed, requiring a lightness of touch, only to be acquired by their early introduction to these factories.”¹⁷³

The children were slaughtered out-and-out for the sake of their delicate fingers, as in Southern Russia the horned cattle for the sake of their hide and tallow. At length, in 1850, the privilege granted in 1844, was limited to the departments of silk-twisting and silk-winding. But here, to make amends to capital bereft of its “freedom,” the worklime for children from 11 to 13 was raised

¹⁷⁰ „Das gegenwärtige Gesetz“ (von 1850) „war ein Kompromiß, bei dem die Arbeiter auf den Segen des Zehnstundengesetzes für den Vorteil eines einheitlichen Arbeitsbeginns und Arbeitsschlusses jener verzichteten, deren Arbeitszeit der Begrenzung unterliegt.“ („Reports etc. for 30th April 1852“, p. 14.)

309:5–311:1 Eine Fabrikantenkategorie sicherte sich diesmal, wie früher, besondere Seigniorialrechte auf Proletariatkinder. Es waren dies die Seidenfabrikanten. Im Jahr 1833 hatten sie drohend geheult, „wenn man ihnen die Freiheit raube, Kinder jedes Alters täglich 10 Stunden abzurackern, setze man ihre Fabriken still“ („if the liberty of working children of any age for 10 hours a day was taken away, it should stop their works“). Es sei ihnen unmöglich, eine hinreichende Anzahl von Kindern über 13 Jahren zu kaufen. Sie erpreßten das gewünschte Privilegium. Der Vorwand stellte sich bei später Untersuchung als bare Lüge heraus,¹⁷¹ was sie jedoch nicht verhinderte, während eines Dezenniums aus dem Blut kleiner Kinder, die zur Verrichtung ihrer Arbeit auf Stühle gestellt werden mußten, täglich 10 Stunden Seide zu spinnen.¹⁷² Der Akt von 1844 „beraubte“ sie zwar der „Freiheit“, Kinder unter 11 Jahren länger als 6 1/2 Stunden, sicherte ihnen dagegen das Privilegium, Kinder zwischen 11 und 13 Jahren 10 Stunden täglich zu verarbeiten, und kassierte den für andre Fabrikinder vorgeschriebenen Schulzwang. Diesmal der Vorwand:

„Die Delikatesse des Gewebes erheische eine Fingerzartheit, die nur durch frühen Eintritt in die Fabrik zu sichern.“¹⁷³

Der delikaten Finger wegen wurden die Kinder ganz geschlachtet, wie Hornvieh in Südrußland wegen Haut und Talg. Endlich, 1850, wurde das 1844 eingeräumte Privilegium auf die Departements der Seidenzwirnerie und Seidenhaspellei beschränkt, hier aber, zum Schadenersatz des seiner „Freiheit“ beraubten Kapitals, die Arbeitszeit für Kinder von 11 bis 13 Jahren von 10

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from 10 to 10 1/2 hours. Pretext: "Labor in silk mills was lighter than in mills for other fabrics, and less likely in other respects also to be prejudicial to health."¹⁷⁴ Official medical inquiries proved afterwards that, on the contrary,

"the average death-rate is exceedingly high in the silk districts and amongst the female part of the population is higher even than it is in the cotton districts of Lancashire."¹⁷⁵

Despite the protests of the Factory Inspector, renewed every 6 months, the mischief continues to this hour.¹⁷⁶

¹⁷¹ Reports, etc., for Sept., 1844, p. 13.

¹⁷² I.c.

¹⁷³ "Reports, etc., for 31st Oct., 1846," p. 20.

¹⁷⁴ Reports, etc., for 31st Oct., 1861, p. 26.

¹⁷⁵ I.c., p. 27. On the whole the working population, subject to the Factory Act, has greatly improved physically. All medical testimony agrees on this point, and personal observation at different times has convinced me of it. Nevertheless, and exclusive of the terrible death-rate of children in the first years of their life, the official reports of Dr. Greenhow show the unfavourable health condition of the manufacturing districts as compared with "agricultural districts of normal health." As evidence, take the following table from his 1861 report:

¹⁷⁶ It is well known with what reluctance the English "Free-traders," gave up the protective duty on the silk manufacture. Instead of the protection against French importation, the absence of protection to English factory children now serves their turn.

⇓ It was an anomaly, perhaps an oversight, in the Factory Acts that children could be used within the limits of a longer working-day than women. The factory owners intended to use this anomaly in order to lengthen the time for male adults back to 15 hours. But it became clear that this would meet fierce resistance of the male workers; therefore the act of 1853 closed this loophole.

299:2 The Act of 1850 changed the 15 hours' time from 6 a.m. to 8.30 p.m., into the 12 hours from 6 a.m. to 6 p.m. for

auf 10 1/2 Stunden erhöht. Vorwand: „Die Arbeit sei leichter in Seidenfabriken als in den andren Fabriken und in keiner Weise so nachteilig für die Gesundheit.“¹⁷⁴ Offizielle ärztliche Untersuchung bewies hinterher, daß umgekehrt

„die durchschnittliche Sterblichkeitsrate in den Seidendistrikten ausnahmsweise hoch und unter dem weiblichen Teil der Bevölkerung selbst höher ist als in den Baumwolldistrikten von Lancashire“¹⁷⁵.

Trotz der halbjährlich wiederholten Proteste der Fabrikinspektoren dauert der Unfug bis zur Stunde fort.¹⁷⁶

¹⁷¹ „Reports etc. for 30th Sept. 1844“, p. 13.

¹⁷² I.c.

¹⁷³ „The delicate texture of the fabric in which they were employed requiring a lightness of touch, only to be acquired by their early introduction to these factories.“ „Rep. etc. for 31st Oct. 1846“, p. 20.)

¹⁷⁴ „Reports etc. for 31st Oct. 1861“, p. 26.

¹⁷⁵ I.c. p. 27. Im allgemeinen hat sich die dem Fabrikgesetz unterworfenen Arbeiterbevölkerung physisch sehr verbessert. Alle ärztlichen Zeugnisse stimmen darin überein und eigne persönliche Anschauung zu verschiedenen Perioden hat mich davon überzeugt. Dennoch, und abgesehen von der ungeheuren Sterblichkeitsrate der Kinder in den ersten Lebensjahren, zeigen die offiziellen Berichte des Dr. Greenhow den ungünstigen Gesundheitszustand der Fabrikdistrikte, verglichen mit „Agrikulturdistrikten von normaler Gesundheit“. Zum Beweis u.a. folgende Tabelle aus seinem Bericht von 1861:

¹⁷⁶ Man weiß, wie widerstrebend die englischen „Freihändler“ dem Schutzzoll für Seidenmanufaktur entsagten. Statt des Schutzes gegen französische Einfuhr dient nun die Schutzlosigkeit englischer Fabrikinder.

311:2/o Das Gesetz von 1850 verwandelte nur für „junge Personen und Frauenzimmer“ die fünfzehnstündige Periode von halb

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“young persons and women” only. It did not, therefore, affect children who could always be employed for half an hour before and 2 1/2 hours after this period, provided the whole of their labor did not exceed 6 1/2 hours. Whilst the bill was under discussion, the Factory Inspectors laid before Parliament statistics of the infamous abuses due to this anomaly. To no purpose. In the background lurked the intention of screwing up, during prosperous years, the working-day of adult males to 15 hours by the aid of the children. The experience of the three following years showed that such an attempt must come to grief against the resistance of the adult male operatives.¹⁷⁷ The Act of 1850 was therefore finally completed in 1853 by forbidding the “employment of children in the morning before and in the evening after young persons and women.”

6 Uhr morgens bis halb 9 Uhr abends in die zwölfstündige Periode von 6 Uhr morgens bis 6 Uhr abends. Also nicht für Kinder, die immer noch eine halbe Stunde vor Beginn und 2 1/2 Stunden nach Schluß dieser Periode verwertbar blieben, wenn auch die Gesamtdauer ihrer Arbeit 6 1/2 Stunden nicht überschreiten durfte. Während der Diskussion des Gesetzes wurde dem Parlament von den Fabrikinspektoren eine Statistik über die infamen Mißbräuche jener Anomalie unterbreitet. Jedoch umsonst. Im Hintergrund lauerte die Absicht, den Arbeitstag der erwachsenen Arbeiter mit Beihilfe der Kinder in Prosperitätsjahren wieder auf 15 Stunden zu schrauben. Die Erfahrung der folgenden 3 Jahre zeigte, daß solcher Versuch am Widerstand der erwachsenen männlichen Arbeiter scheitern müsse.¹⁷⁷ Der Akt von 1850 wurde daher 1853 endlich ergänzt durch das Verbot, „Kinder des Morgens vor und Abends nach den jungen Personen und Frauenzimmern zu verwenden“.

↓ This meant that the factory acts regulated the labor times of all workers.

Henceforth with a few exceptions the Factory Act of 1850 regulated the working-day of all workers in the branches of industry that come under it.¹⁷⁸ Since the passing of the first Factory Act half a century had elapsed.¹⁷⁹

Von nun an regelte, mit wenigen Ausnahmen, der Fabrikakt von 1850 in den ihm unterworfenen Industriezweigen den Arbeitstag aller Arbeiter.¹⁷⁸ Seit dem Erlass des ersten Fabrikakts war jetzt ein halbes Jahrhundert verflossen.¹⁷⁹

¹⁷⁷ Reports etc. for 30th April 1853, p. 30.

¹⁷⁷ „Reports etc. for 30th April 1853“, p. 30.

↓ Footnote 178 shows how the male adult workers fought for a limitation of their working hours:

¹⁷⁸ During 1859 and 1860, the zenith years of the English cotton industry, some manufacturers tried, by the decoy bait of higher wages for over-time, to reconcile the adult male operatives to an extension of the working-day. The hand-mule spinners and self-actor mincers put an end to the experiment by a petition to their employers in which they say, “Plainly speaking, our lives are to us a burthen; and, while we are confined to the mills *nearly two days a week more* than the other operatives of the country, we feel like helots in the land, and that we are perpetuating a system injurious to ourselves and future generations . . . This, therefore, is to give you most respectful notice that when we commence work

¹⁷⁸ Während der Zenitjahre der englischen Baumwollindustrie, 1859 und 1860, versuchten einige Fabrikanten durch die Lockangel hoher Arbeitslöhne für Extrazeit, die Erwachsenen männlichen Spinner usw. zur Verlängerung des Arbeitstags zu bestimmen. Die Hand-Mule Spinner und Self-Actor Minders machten dem Experiment ein Ende durch eine Denkschrift an ihre Anwender, worin es u.a. heißt: „Grad herausgesprochen, unser Leben ist uns zur Last, und solange wir fast 2 Tage die Woche“ (20 Stunden) „länger an die Fabrik gekettet sind als die andren Arbeiter, fühlen wir uns gleich Heloten im Lande und werfen uns selbst vor, ein System zu verewigen, das uns selbst und unsre Nach-

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again after the Christmas and New Year's holidays, we shall work 60 hours per week, and no more, or from six to six, with one hour and a half out." (Reports, etc., for 30th April, 1860, p. 30.)

¹⁷⁹ On the means that the wording of this Act afforded for its violation cf. the Parliamentary Return "Factories Regulation Act" (6th August, 1859), and in it Leonard Homer's "Suggestions for amending the Factory Acts to enable the Inspectors to prevent illegal working, now becoming very prevalent."

kommen physisch und moralisch beschädigt ... Daher geben wir hier mit respektvoller Notiz, daß wir von Neujahrstag an keine Minute mehr als 60 Stunden wöchentlich, von 6 Uhr bis 6 Uhr, mit Abzug der gesetzlichen Pausen von 1 1/2 Stunden, arbeiten werden." „Reports etc. for 30th April 1860“, p. 30.)

¹⁷⁹ Über die Mittel, die die Fassung dieses Gesetzes für seinen Bruch gewährt, cf. den Parliamentary Return „Factories Regulation Acts“ (9. August 1859) und darin Leonard Horners „Suggestions for Amending the Factory Acts to enable the Inspectors to prevent illegal working, now become very prevalent“.

10.6.h. [“Wonderful Development” 1853–1860]

The only remaining limitation preventing a general regulation of the working-day consisted in the fact that the factory acts applied only for a few selected industries.

↓ “Printworks’ Act of 1845” (i.e., 8 years before the 1853 laws which Marx is presently discussing) had been the first attempt to extend factory legislation beyond the industries for which it was originally intended.

299:3/o Factory legislation for the first time went beyond its original sphere in the “Printworks’ Act of 1845.” The displeasure with which capital received this new “extravagance” speaks through every line of the Act.

In the machinery chapter, 497:1, Marx will say more about the contradiction between the necessity to pass the legislation, and the reluctance to apply it.

It limits the working-day for children from 8 to 13, and for women to 16 hours, between 6 a.m. and 10 p.m., without any legal pause for meal-times. It allows males over 13 to be worked at will day and night.¹⁸⁰ It is a Parliamentary abortion.¹⁸¹

¹⁸⁰ “Children of the age of 8 years and upwards, have, indeed, been employed from 6 a.m. to 9 p.m. during the last half year in my district.” (Reports, etc., for 31st October, 1857, p. 39.)

¹⁸¹ “The Printworks’ Act is admitted to be a failure both with reference to its educational and protective provisions.” (Reports, etc., for 31st October, 1862, p. 52.)

312:1 Über ihre ursprüngliche Sphäre griff die Gesetzgebung zuerst hinaus durch den „Printworks’ Act“ (Gesetz über Kattundruckereien usw.) von 1845. Die Unlust, womit das Kapital diese neue „Extravaganz“ zuließ, spricht aus jeder Zeile des Akts!

Er beschränkt den Arbeitstag für Kinder von 8–13 Jahren und für Frauenzimmer auf 16 Stunden zwischen 6 Uhr morgens und 10 Uhr abends, ohne irgendeine gesetzliche Pause für Mahlzeiten. Er erlaubt, männliche Arbeiter über 13 Jahre Tag und Nacht hindurch beliebig abzuarbeiten.¹⁸⁰ Er ist ein parlamentarischer Abort.¹⁸¹

¹⁸⁰ „Kinder von 8 Jahren und darüber sind in der Tat von 6 Uhr morgens bis 9 Uhr abends während des letzten Halbjahrs“ (1857) „in meinem Distrikt abgerackert worden.“ „Reports etc. for 31st Oct. 1857“, p. 39.)

¹⁸¹ „Das Gesetz über Kattundruckereien ist zugestandenmaßen ein Fehlgriff sowohl in bezug auf seine Erziehungs- als auch seine Schutzmaßregeln.“ „Reports etc. for 31st Oct. 1862“, p. 52.)

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↑ This first attempt to extend the factory acts to other industries had therefore been a failure. ↓ But the 1853 victory of the factory acts in the original industries, which are the industries most characteristic of the capitalist mode of production, constituted a victory of “the principle,” opening the door to a “wonderful development” not only of the welfare of the working class but of the entire capitalist mode of production 1853–1860.

300:1 However, the principle had triumphed with its victory in those branches of big industry which form the most characteristic creation of the modern mode of production. Their wonderful development from 1853 to 1860, hand-in-hand with the physical and moral regeneration of the factory workers, struck the most purblind.

312:2/o Dennoch hatte das Prinzip gesiegt mit seinem Sieg in den großen Industriezweigen, welche das eigenste Geschöpf der modernen Produktionsweise. Ihre wundervolle Entwicklung von 1853–1860, Hand in Hand mit der physischen und moralischen Wiedergeburt der Fabrikarbeiter, schlug das blödeste Auge.

“Their wonderful development” means here: the wonderful development of the branches of industry covered by the Factory Acts. This is unambiguous in the original German. Not only the workers benefited, but those branches of industry in which the factory laws applied also had higher profits and higher productivity.

This shows the victory of which principle? In his 1864 “Inaugural Address to the First International” Marx said that the Ten Hours’ Bill in England

was not only a great practical success; it was the victory of a principle; it was the first time that in broad daylight the political economy of the middle class (blind rule of the supply and demand laws) succumbed to the political economy of the working class (social production controlled by social foresight).

(I inserted the parentheses from the directly preceding sentence by Marx).

Marx stresses the importance of the development of the working class also in the Preface to the First Edition, 9:4/o; this is the reason why he put so much emphasis on the working-day. In chapter Fifteen, 504:3/o, Marx also mentions that despite its inevitability as a protective measure for the working class the factory legislation sharpens the contradictions inherent in the capitalist mode of production.

Question 875 Which principle did Marx mean when he said in 408:2/o that “the principle had triumphed”?

↓ The general benefits of the factory legislation were so obvious that even the capitalists, who had originally fought it tooth and nail, now bragged about it:

The masters from whom the legal limitation and regulation had been wrung step by step after a civil war of half a century, themselves referred ostentatiously to the contrast with the branches of exploitation still “free.”¹⁸²

Die Fabrikanten selbst, denen die gesetzliche Schranke und Regel des Arbeitstags durch halbhundertjährigen Bürgerkrieg Schritt für Schritt abgetrotzt, wiesen prahlend auf den Kontrast mit den noch „freien“ Exploitationsgebieten hin.¹⁸²

¹⁸² Thus, e.g., E. Potter in a letter to the *Times* of March 24th, 1863. The *Times* reminded him of the manufacturers’ revolt against the Ten Hours’ Bill.

¹⁸² So z.B. E. Potter in Brief an „Times“ vom 24. März 1863. Die „Times“ erinnert ihn an die Fabrikantenrevolte gegen das Zehnstundengesetz.

After their defeat, the capitalists did not admit that they ever had fought against this progressive legislation, but tried to even get credit for it.

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Question 876 *Why did the capitalists praise the advantages of the factory acts after they were passed?*

↓ After the laws were achieved through class struggle, the political economists suddenly got the enlightenment that such laws were a necessity:

The Pharisees of "Political Economy" now proclaimed the discernment of the necessity of a legally fixed working-day as a characteristic new discovery of their "science."¹⁸³

¹⁸³ Thus, among others, Mr. W. Newmarch, collaborator and editor of Tooke's "History of Prices." Is it a scientific advance to make cowardly concessions to public opinion?

↓ Also the resistance of the capitalists weakened. Once the laws were an actuality, they no longer seemed so outrageous.

It will be easily understood that after the factory magnates had resigned themselves and become reconciled to the inevitable, the power of resistance of capital gradually weakened, whilst at the same time the power of attack of the working-class grew with the number of its allies in the classes of society not immediately interested in the question. Hence the comparatively rapid advance since 1860.

↓ Expansion of this legislation into other industries.

300:1–302:0 The dye-works and bleach-works all came under the Factory Act of 1850 in 1860;¹⁸⁴ lace and stocking manufactures in 1861.

↓ The footnote shows that they tried to repeat the same tricks which were also tried in the cotton factories:

¹⁸⁴ The Act passed in 1860, determined that, in regard to dye and bleachworks, the working-day should be fixed on August 1st, 1861, provisionally at 12 hours, and definitely on August 1st, 1862, at 10 hours, *i.e.*, at 10 1/2 hours for ordinary days, and 7 1/2 for Saturday. Now, when the fatal year, 1862, came, the old farce was repeated. Besides, the manufacturers petitioned Parliament to allow the employment of young persons and women for 12 hours during one year longer. "In the existing condition of the trade (the time of the cotton famine), it was greatly to the advantage of the operatives to work 12 hours per day, and make wages when they could." A bill to this effect had been brought in, "and it was mainly due to the action of the operative bleach-

Die Pharisäer der „politischen Ökonomie“ proklamierten nun die Einsicht in die Notwendigkeit eines gesetzlich geregelten Arbeitstags als charakteristische Neuerrungenschaft ihrer „Wissenschaft“.¹⁸³

¹⁸³ So u.a. Herr W. Newmarch, Mitarbeiter an und Herausgeber von Tookes „History of Prices“. Ist es wissenschaftlicher Fortschritt, der öffentlichen Meinung feige Konzessionen zu machen?

Man versteht leicht, daß, nachdem sich die Fabrikmagnaten in das Unvermeidliche gefügt und mit ihm ausgesöhnt, die Widerstandskraft des Kapitals graduell abschwächte, während zugleich die Angriffskraft der Arbeiterklasse wuchs mit der Zahl ihrer Verbündeten in den nicht unmittelbar interessierten Gesellschaftsschichten. Daher vergleichungsweise rascher Fortschritt seit 1860.

313:1/oo Die Färbereien und Bleichereien¹⁸⁴ wurden 1860, die Spitzenfabriken und Strumpfwirkereien 1861 dem Fabrikakt von 1850 unterworfen.

¹⁸⁴ Der 1860 erlassene Akt über Bleichereien und Färbereien bestimmt, daß der Arbeitstag am 1. August 1861 vorläufig auf 12, am 1. August 1862 definitiv auf 10 Stunden, d.h. 10 1/2 für Werkeltage und 7 1/2 für Samstage herabgesetzt werde. Als nun das böse Jahr 1862 anbrach, wiederholte sich die alte Farce. Die Herrn Fabrikanten petitionierten das Parlament, nur noch für ein einziges Jahr länger die zwölfstündige Beschäftigung von jungen Personen und Frauenzimmern zu dulden ... „Beim gegenwärtigen Zustand des Geschäfts“ (zur Zeit der Baumwollnot) „sei es ein großer Vorteil für die Arbeiter, wenn man ihnen erlaubt, 12 Stunden täglich zu arbeiten und so viel Arbeitslohn als möglich herauszuschlagen ... Es war bereits gelungen, eine Bill in die-

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ers in Scotland that the bill was abandoned.” (Reports, etc., for 31st October, 1862, pp. 14–15.) Thus defeated by the very workpeople, in whose name it pretended to speak. Capital discovered, with the help of lawyer spectacles, that the Act of 1860, drawn up, like all the Acts of Parliament for the “protection of labor,” in equivocal phrases, gave them a pretext to exclude from its working the calenderers and finishers. English jurisprudence, ever the faithful servant of capital, sanctioned in the Court of Common Pleas this piece of pettifogging. “The operatives have been greatly disappointed . . . they have complained of over-work, and it is greatly to be regretted that the clear intention of the legislature should have failed by reason of a faulty definition.” (l.c., p. 18.)

sem Sinn ins Unterhaus zu bringen. Sie fiel vor der Agitation der Arbeiter in den Bleichereien Schottlands.“ („Reports etc. for 31st Oct. 1862“, p. 14, 15.) So geschlagen von den Arbeitern selbst, in deren Namen es zu sprechen vorgab, entdeckte das Kapital nun, mit Hilfe juristischer Brillen, daß der Akt von 1860, gleich allen Parlamentasakten zum „Schutz der Arbeit“, in sinnverwirrten Wortschraubungen abgefaßt, einen Vorwand gebe, die „calenderers“ und „finishers“ von seiner Wirkung auszuschließen. Die englische Jurisdiktion, stets getreuer Knecht des Kapitals, sanktionierte durch den Hof der „Common Pleas“ die Rabulisterie. „Es hat große Unzufriedenheit unter den Arbeitern erregt und ist sehr bedauerlich, daß die klare Absicht der Gesetzgebung auf Vorwand einer mangelhaften Wortdefinition vereitelt wird.“ (l.c. p. 18.)

↓ *The Children’s Employment Commission* caused regulation of many industries.

In consequence of the first report of the Commission on the employment of children (1863) the same fate was shared by the manufacturers of all earthenwares (not merely pottery), Lucifer-matches, percussion-caps, cartridges, carpets, fustian-cutting, and many processes included under the name of “finishing.” In the year 1863 bleaching in the open air¹⁸⁵ and baking were placed under special Acts, by which, in the former case, the labor of young persons and women during the night-time (from 8 in the evening to 6 in the morning), and in the latter, the employment of journeymen bakers under 18, between 9 in the evening and 5 in the morning were forbidden.

Infolge des ersten Berichts der „Kommission über die Beschäftigung der Kinder“ (1863) teilten dasselbe Schicksal die Manufaktur aller Erdenwaren (nicht nur Töpfereien), der Zündhölzer, Zündhütchen, Patronen, Tapetenfabrik, Baumwollsamtscherelei (fustian cutting) und zahlreiche Prozesse, die unter dem Ausdruck „finishing“ (letzte Appretur) zusammengefaßt sind. Im Jahre 1863 wurden die „Bleicherei in offener Luft“¹⁸⁵ und die Bäckerei unter eigne Akte gestellt, wovon der erste u.a. die Arbeit von Kindern, jungen Personen und Weibern zur Nachtzeit (von 8 Uhr abends bis 6 Uhr morgens) und der zweite die Anwendung von Bäckergehilfen unter 18 Jahren zwischen 9 Uhr abends und 5 Uhr morgens verbietet.

¹⁸⁵ The “open-air bleachers” had evaded the law of 1860, by means of the lie that no women worked at it in the night. The lie was exposed by the Factory Inspectors, and at the same time Parliament was, by petitions from the operatives, bereft of its notions as to the cool meadow-fragrance, in which bleaching in the open-air was reported to take place. In this aerial bleaching, drying-rooms were used at temperatures of from 90° to 100° Fahrenheit, in which the work was done for the most part by girls. “Cooling” is the technical expression for their occasional escape from the drying-rooms into the fresh air. “Fifteen girls in stoves. Heat from 80° to 90° for linens,

¹⁸⁵ Die „Bleicher in offener Luft“ hatten sich dem Gesetz von 1860 über „Bleicherei“ durch die Lüge entzogen, daß sie keine Weiber des Nachts verarbeiteten. Die Lüge wurde von den Fabrikinspektoren aufgedeckt, zugleich aber das Parlament durch Arbeiterpetitionen seiner wiesenduftkühlen Vorstellungen von „Bleicherei in offener Luft“ beraubt. In dieser Luftbleicherei werden Trockenzimmer von 90 bis 100 Grad Fahrenheit angewandt, worin hauptsächlich Mädchen arbeiten. „Cooling“ (Abkühlung) ist der technische Ausdruck für gelegentliches Entrinnen aus dem Trockenzimmer in die freie Luft. „Fünfzehn Mädchen in den Trockenzimmern. Hitze

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and 100° and upwards for cambrics. Twelve girls ironing and doing-up in a small room about 10 feet square, in the centre of which is a close stove. The girls stand round the stove, which throws out a terrific heat, and dries the cambrics rapidly for the ironers. The hours of work for these hands are unlimited. If busy, they work till 9 or 12 at night for successive nights.” (Reports, etc., for 31st October, 1862, p. 56.) A medical man states: “No special hours are allowed for cooling, but if the temperature gets too high, or the workers’ hands get soiled from perspiration, they are allowed to go out for a few minutes . . . My experience, which is considerable, in treating the diseases of stove workers, compels me to express the opinion that their sanitary condition is by no means so high as that of the operatives in a spinning factory (and Capital, in its memorials to Parliament, had painted them as floridly healthy after the manner of Rubens.) The diseases most observable amongst them are phthisis, bronchitis, irregularity of uterine functions, hysteria in its most aggravated forms, and rheumatism. All of these, I believe, are either directly or indirectly induced by the impure, overheated air of the apartments in which the hands are employed and the want of sufficient comfortable clothing to protect them from the cold, damp atmosphere, in winter, when going to their homes.” (l.c., pp. 56–57.)

von 80 zu 90° für Leinwand, von 100° und mehr für Cambrics. Zwölf Mädchen bügeln und legen auf (die Cambrics etc.) in einem kleinen Zimmer von ungefähr 10 Fuß im Quadrat, in der Mitte ein enggeschlossener Ofen. Die Mädchen stehen rund um den Ofen herum, der eine schreckliche Glut ausstrahlt und die Cambrics rasch für die Büglerinnen trocknet. Die Stundenzahl für diese Hände ist unbeschränkt. Wenn geschäftig, arbeiten sie bis 9 oder 12 Uhr nachts viele Tage hintereinander.“ „Reports etc. for 31st Oct. 1862“, p. 56.) Ein Arzt erklärt: „Für die Abkühlung sind keine besondern Stunden erlaubt, aber wenn die Temperatur zu unerträglich wird, oder die Hände der Arbeiterinnen sich von Schweiß beschmutzen, ist ihnen gestattet, ein paar Minuten fortzugehen . . . Meine Erfahrung in der Behandlung der Krankheiten dieser Arbeiterinnen zwingt mich zu konstatieren, daß ihr Gesundheitszustand tief unter dem der Baumwollspinnerinnen steht“ (und das Kapital hatte sie in seinen Bittschriften an das Parlament in der Manier von Rubens übergesandt gemalt!). „Ihre auffallendsten Krankheiten sind Phthisis, Bronchitis, Uterinkrankheiten, Hysterie in der scheußlichsten Form und Rheumatismus. Alle diese entspringen, wie ich glaube, direkt oder indirekt, aus der überhitzten Luft ihrer Arbeitszimmer und dem Mangel genügender komfortabler Kleidung, um sie beim Nachhausegehen während der Wintermonate vor der kaltefeuchten Atmosphäre zu schützen.“ (l.c. p. 56, 57.)

↓ Despite these horrible conditions, the 1863 law remained ineffectual.

^{185 ctd} The Factory Inspectors remarked on the supplementary law of 1860, torn from these open-air bleachers: “The Act has not only failed to afford that protection to the workers which it appears to offer, but contains a clause . . . apparently so worded that, unless persons are detected working after 8 o’clock at night they appear to come under no protective provisions at all, and if they do so work the mode of proof is so doubtful that a conviction can scarcely follow.” (l.c., p. 52.) “To all intents and purposes, therefore, as an Act for any benevolent or educational purpose, it is a failure; since it can scarcely be called benevolent to permit, which is tantamount to compelling, women and children to work 14 hours a day with or without meals, as the case may be, and perhaps for longer hours than these, without limit as to age, without reference to sex, and without regard to the social habits of the fam-

^{185 ctd} Die Fabrikinspektoren bemerken über das den jovialen „Bleichern in offener Luft“ nachträglich abgetrozzte Gesetz von 1863: „Dieser Akt hat nicht nur verfehlt, den Arbeitern den Schutz zu gewähren, den er zu gewähren scheint . . . er ist so formuliert, daß der Schutz erst eintritt, sobald man Kinder und Frauenzimmer nach 8 Uhr abends an der Arbeit ertappt, und selbst dann ist die vorgeschriebene Beweismethode so verklausuliert, daß Bestrafung kaum erfolgen kann.“ (l.c. p. 52.) „Als ein Akt mit humanen und auf Erziehung gerichteten Zwecken ist er ganz und gar verfehlt. Man wird es doch kaum human nennen, Weibern und Kindern zu erlauben, oder, was auf dasselbe hinauskommt, sie zu zwingen, 14 Stunden täglich, mit oder ohne Mahlzeiten, wie es sich treffen mag, und vielleicht noch längere Stunden zu arbeiten, ohne Schranke mit Bezug auf das Alter, ohne Unterschied des Geschlechts

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ilies of the neighbourhood, in which such works (bleaching and dyeing) are situated.” (Reports, etc., for 30th April, 1863, p. 40.)

We shall return to the later proposals of the same Commission, which threatened to deprive of their “freedom” all the important branches of English Industry, with the exception of agriculture, mines, and the means of transport.^{185a}

^{185a} Note to the 2nd Ed. Since 1866, when I wrote the above passages, a reaction has again set in.

und ohne Rücksicht auf die gesellschaftlichen Gewohnheiten der Familien der Nachbarschaft, worin die Bleichwerke liegen.“ („Reports etc. for 30th April 1863“, p. 40.)

Auf die spätern Vorschläge der erwähnten Kommission, welche, mit Ausnahme des Ackerbaus, der Minen und des Transportwesens, alle wichtigen englischen Industriezweige der „Freiheit“ zu berauben drohen, kommen wir zurück.^{185a}

^{185a} Note zur 2. Ausg. Seit 1866, wo ich das im Text Befindliche schrieb, ist wieder eine Reaktion eingetreten.

10.7. The Struggle around the Normal Working-Day. Effect of the English Factory Acts on Other Countries

This section discusses not only the geographical dispersal of the Factory Acts, but also their generalization to other industries after they were first introduced as exceptional legislation in the cotton industry.

302:1 The reader will bear in mind that the production of surplus-value, or the extraction of surplus-labor, is the specific end and aim, the sum and substance, of capitalist production, quite apart from any changes in the mode of production, which may arise from the subordination of labor to capital.

315:1 Der Leser erinnert sich, daß die Produktion von Mehrwert oder die Extraktion von Mehrarbeit den spezifischen Inhalt und Zweck der kapitalistischen Produktion bildet, abgesehen von jedweder aus der Unterordnung der Arbeit unter das Kapital etwa entspringenden Umgestaltung der Produktionsweise selbst.

↑ Marx has made a similar remark in footnote 152 to paragraph 292:3. The transformation of the mode of production itself is not the purpose. The capitalist does not care whether it occurs or not, he only cares about his profits. Why do we therefore discuss this transformation of production here in such detail? There is also another point where the present discussion seems atypical:

He will remember that as far as we have at present gone only the independent laborer, and therefore only the laborer legally qualified to act for himself, enters as a vendor of a commodity into a contract with the capitalist. If, therefore, in our historical sketch, on the one hand, modern industry, on the other, the labor of those who are physically and legally minors, play important parts, the former was to us only a special department, and the latter only a specially striking example of labor exploitation. Without, however,

Er erinnert sich, daß auf dem bisher entwickelten Standpunkt nur der selbständige und daher gesetzlich mündige Arbeiter als Warenverkäufer mit dem Kapitalisten kontrahiert. Wenn also in unsrer historischen Skizze einerseits die moderne Industrie eine Hauptrolle spielt, andererseits die Arbeit physisch und rechtlich Unmündiger, so galt uns die eine nur als besondere Sphäre, die andre nur als besonders schlagendes Beispiel der Arbeitsausaugung. Ohne jedoch der spätern Entwicklung vorzugreifen, folgt

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anticipating the subsequent development of our inquiry, from the mere connexion of the historic facts before us it follows:

(1) Factory legislation started as exceptional legislation, restricted to textile production, where machinery was used first. This machinery changed the social relations of the producers (child labor). This made excesses possible which required social control.

302:2/o *First.* The passion of capital for an unlimited and reckless extension of the working-day, is first gratified in the industries earliest revolutionised by water-power, steam, and machinery, in those first creations of the modern mode of production, cotton, wool, flax, and silk spinning, and weaving. The changes in the material mode of production, and the corresponding changes in the social relations of the producers¹⁸⁶ gave rise first to an extravagance beyond all bounds, and then in opposition to this, called forth a control on the part of Society which legally limits, regulates, and makes uniform the working-day and its pauses.

↑ Interesting formulation: the excesses of the capitalists call forth social control. The conflict is here not seen as one between the capitalist class and the working class, but as one between capitalist agents who (driven by competition) commit excesses which require social control. Similar formulation also in the machinery chapter, 412:1.

¹⁸⁶ "The conduct of each of these classes (capitalists and workmen) has been the result of the relative situation in which they have been placed." (Reports, etc., for 31st October, 1848, p. 113.)

↓ Reasons why this legislation lost its exceptional character.

This control appears, therefore, during the first half of the nineteenth century simply as exceptional legislation.¹⁸⁷ As soon as this primitive dominion of the new mode of production was conquered, it was found that, in the meantime, not only had many other branches of production been made to adopt the same factory system, but that manufactures with more or less obsolete methods, such as potteries, glass-making, etc., that old-fashioned handicrafts, like baking, and, finally, even that the so-called domestic industries, such as nail-making,¹⁸⁸ had long since fallen as completely under capitalist exploitation as the factories themselves. Legislation was, therefore, compelled to

aus dem bloßen Zusammenhang der geschichtlichen Tatsachen:

315:2/o *Erstens:* In den durch Wasser, Dampf und Maschinerie zunächst revolutionisierten Industrien, in diesen ersten Schöpfungen der modernen Produktionsweise, den Baumwolle-, Wolle-, Flachs-, Seide-Spinnereien und Webereien wird der Trieb des Kapitals nach maß- und rücksichtsloser Verlängerung des Arbeitstags zuerst befriedigt. Die veränderte materielle Produktionsweise und die ihr entsprechend veränderten sozialen Verhältnisse der Produzenten¹⁸⁶ schaffen erst die maßlose Ausschreitung und rufen dann im Gegensatz die gesellschaftliche Kontrolle hervor, welche den Arbeitstag mit seinen Pausen gesetzlich beschränkt, reguliert und uniformiert.

¹⁸⁶ „Das Verhalten jeder dieser Klassen“ (Kapitalisten und Arbeiter) „war das Ergebnis der jeweiligen Situation, in die sie versetzt worden waren.“ (Reports etc. for 31st Oct. 1848“, p. 113.)

Diese Kontrolle erscheint daher während der ersten Hälfte des 19. Jahrhunderts bloß als Ausnahmegesetzgebung.¹⁸⁷ Sobald sie das Urgebiet der neuen Produktionsweise erobert hatte, fand sich, daß unterdes nicht nur viele andre Produktionszweige in das eigentliche Fabrikregime eingetreten, sondern daß Manufakturen mit mehr oder minder verjährter Betriebsweise, wie Töpfereien, Glasereien usw., daß altmodische Handwerke, wie die Bäckerei, und endlich selbst die zerstreute sog. Hausarbeit, wie Nägelmacherei usw.,¹⁸⁸ seit lange der kapitalistischen Exploitation ebensosehr verfallen waren als die Fabrik. Die Gesetzgebung ward daher gezwungen, ihren Ausnahme-

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gradually get rid of its exceptional character, or where, as in England, it proceeds after the manner of the Roman Casuists, to declare any house in which work was done to be a factory.¹⁸⁹

¹⁸⁷ “The employments, placed under restriction, were connected with the manufacture of textile fabrics by the aid of steam or water-power. There were two conditions to which an employment must be subject to cause it to be inspected, viz., the use of steam or waterpower, and the manufacture of certain specified fibers.” (Reports, etc., for 31st October, 1864, p. 8.)

¹⁸⁸ On the condition of so-called domestic industries, specially valuable materials are to be found in the latest reports of the Children’s Employment Commission.

¹⁸⁹ “The Acts of last Session (1864) ... embrace a diversity of occupations, the customs in which differ greatly, and the use of mechanical power to give motion to machinery is no longer one of the elements necessary, as formerly, to constitute, in legal phrase, a ‘Factory.’” (Reports, etc., for 31st October, 1864, p. 8.)

charakter allmählich abzustreifen, oder, wo sie römisch kasuistisch verfährt, wie in England, irgendein Haus, worin man arbeitet, nach Belieben für eine Fabrik (factory) zu erklären.¹⁸⁹

¹⁸⁷ „Die Verrichtungen, die unter die Einschränkung fielen, waren mit der Herstellung von Textilerzeugnissen mit Hilfe von Dampf- oder Wasserkraft verbunden. Zwei Bedingungen mußte eine Arbeitstätigkeit erfüllen, damit sie unter den Schutz der Fabrikinspektion fiel, nämlich die Anwendung von Dampf- oder Wasserkraft und die Verarbeitung bestimmter spezifizierter Faserstoffe.“ („Reports etc. for 31st October 1864“, p. 8.)

¹⁸⁸ Über den Zustand dieser sogenannten häuslichen Industrie äußerst reichhaltiges Material in den letzten Berichten der „Children’s Employment Commission“.

¹⁸⁹ „Die Gesetze der letzten Sitzungsperiode“ (1864) „... umfassen Beschäftigungszweige verschiedener Art, in denen sehr verschiedene Gewohnheiten herrschen, und die Verwendung mechanischer Kraft zum Antrieb der Maschinerie gehört nicht mehr, wie früher, zu den notwendigen Bedingungen, unter denen ein Betrieb im Sinne des Gesetzes als Fabrik galt.“ („Reports etc. for 31st Oct. 1864“, p. 8.)

Question 877 Why was it generalized?

Secondly: As soon as capitalism has reached a certain maturity, the worker is defeated without being able to put up any resistance if he tries to fight back by himself. From this, Marx concludes that the struggle turns into a class struggle. More about that in the famous very last paragraph of this chapter 301:3/o. The class character of these struggles also implies that the struggle of the English working class benefits the working classes in the other countries as well. Marx also mentions another fact which can be considered a consequence of the struggles of the English working class: the English theoreticians also took on capital.

303:1/o *Second.* The history of the regulation of the working-day in certain branches of production, and the struggle still going on in others in regard to this regulation, prove conclusively that the isolated laborer, the laborer as “free” vendor of his labor-power, when capitalist production has once attained a certain stage, succumbs without any power of resistance. The creation of a normal working-day is, therefore, the product of a protracted civil war, more

316:1/o Zweitens: Die Geschichte der Regelung des Arbeitstags in einigen Produktionsweisen, in andren der noch fortdauernde Kampf um diese Regelung, beweisen handgreiflich, daß der vereinzelte Arbeiter, der Arbeiter als „freier“ Verkäufer seiner Arbeitskraft, auf gewisser Reifestufe der kapitalistischen Produktion, widerstandslos unterliegt. Die Schöpfung eines Normalarbeitstags ist daher das Produkt eines langwierigen, mehr oder minder versteck-

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or less dissembled, between the capitalist class and the working-class.

↓ Not only is the cotton industry the original area of the specific capitalist mode of production, but England is also its home country.

As the contest takes place in the arena of modern industry, it first breaks out in the home of that industry—England.¹⁹⁰

↓ In contrast to England, the footnote tells about backwards Belgium:

¹⁹⁰ Belgium, the paradise of Continental Liberalism, shows no trace of this movement. Even in the coal and metal mines laborers of both sexes, and all ages, are consumed, in perfect “freedom” at any period and through any length of time. Of every 1,000 persons employed there, 733 are men, 88 women, 135 boys, and 44 girls under 16; in the blast furnaces, etc., of every 1,000, 668 are men, 149 women, 98 boys, and 85 girls under 16. Add to this the low wages for the enormous exploitation of mature and immature labor-power. The average daily pay for a man is 2s. 8d., for a woman, 1s. 8d., for a boy, 1s. 2 1/2d. As a result, Belgium had in 1863, as compared with 1850, nearly doubled both the amount and the value of its exports of coal, iron, etc.

The English factory workers were the champions, not only of the English, but of the modern working-class generally, as their theorists were the first to throw down the gauntlet to the theory of capital.¹⁹¹

↓ The footnote brings an example for a theoretician throwing the gauntlet:

¹⁹¹ Robert Owen, soon after 1810, not only maintained the necessity of a limitation of the working-day in theory, but actually introduced the 10 hours’ day into his factory at New Lanark. This was laughed at as a communistic Utopia; so were his “Combination of children’s education with productive labor” and the Co-operative Societies of workingmen first called into being by him. Today, the first Utopia is a Factory Act, the second figures as an official phrase in all Factory Acts, the third is already being used as a cloak for reactionary humbug.

↓ But the main text continues with a counterexample, a scientist defining capital:

Hence, the philosopher of the Factory, Ure, denounces as an ineffable disgrace to the

ten Bürgerkriegs zwischen der Kapitalistenklasse und der Arbeiterklasse.

Wie der Kampf eröffnet wird im Umkreis der modernen Industrie, so spielt er zuerst in ihrem Heimatland, England.¹⁹⁰

about backwards Belgium:

¹⁹⁰ Belgien, das Paradies des kontinentalen Liberalismus, zeigt auch keine Spur dieser Bewegung. Selbst in seinen Kohlengruben und Metallminen werden Arbeiter beider Geschlechter und von jeder Altersstufe mit vollkommener „Freiheit“ für jede Zeitdauer und Zeitperiode konsumiert. Auf je 1000 darin beschäftigten Personen kommen 733 Männer, 88 Weiber, 135 Jungen und 44 Mädchen unter 16 Jahren; in den Hochöfen usw. kommen auf je 1000: 668 Männer, 149 Weiber, 98 Jungen und 85 Mädchen unter 16 Jahren. Kommt nun noch hinzu niedriger Arbeitslohn für enorme Ausbeutung reifer und unreifer Arbeitskräfte, im Tagesdurchschnitt 2 sh. 8 d. für Männer, 1 sh. 8 d. für Weiber, 1 sh. 2 1/2 d. für Jungen. Dafür hat Belgien aber auch 1863, verglichen mit 1850, Quantum und Wert seiner Ausfuhr von Kohlen, Eisen usw. ziemlich verdoppelt. Die englischen Fabrikarbeiter waren die Preisfechter nicht nur der englischen, sondern der modernen Arbeiterklasse überhaupt, wie auch ihre Theoretiker der Theorie des Kapitals zuerst den Fehdehandschuh hinwarfen.¹⁹¹

¹⁹¹ Als Robert Owen kurz nach dem ersten Dezennium dieses Jahrhunderts die Notwendigkeit einer Beschränkung des Arbeitstags nicht nur theoretisch vertrat, sondern den Zehnstundentag wirklich in seine Fabrik zu New-Lanark einführte, ward das als kommunistische Utopie verlacht, ganz so wie seine „Verbindung von produktiver Arbeit mit Erziehung der Kinder“, ganz wie die von ihm ins Leben gerufenen Kooperationsgeschäfte der Arbeiter. Heutzutage ist die erste Utopie Fabrikgesetz, die zweite figuriert als offizielle Phrase in allen „Factory Acts“, und die dritte dient sogar schon zum Deckmantel reaktionärer Schwindeleien.

Der Fabrikphilosoph Ure denunziert es daher als unauslöschliche Schmach der engli-

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English working-class that they inscribed “the slavery of the Factory Acts” on the banner which they bore against capital, manfully striving for “perfect freedom of labor.”¹⁹²

¹⁹² Ure: “French translation, *Philosophie des Manufactures*.” Paris, 1836, Vol. II, pp. 39, 40, 67, 77, etc.

↓ France: later than England, legislation gained not in a protracted hidden civil war but at one stroke in the February revolution. However it is weaker, 12 not 10 hours.

304:1/o France limps slowly behind England. The February revolution was necessary to bring into the world the 12 hours’ law,¹⁹³ which is much more deficient than its English original.

¹⁹³ In the *Compte Rendu* of the International Statistical Congress at Paris, 1855, it is stated: “The French law, which limits the length of daily labor in factories and workshops to 12 hours, does not confine this work to definite fixed hours. Only for children’s labor the work-time is prescribed as between 5 a.m. and 9 p.m. Therefore, some of the masters use the right which this fatal silence gives them to keep their works going, without intermission, day in, day out, possibly with the exception of Sunday. For this purpose they use two different sets of workers, of whom neither is in the workshop more than 12 hours at a time, but the work of the establishment lasts day and night. The law is satisfied, but is humanity?” Besides “the destructive influence or night-labor on the human organism,” stress is also laid upon “the fatal influence of the association of the two sexes by night in the same badly-lighted workshops.”

↓ French method has the advantage that the laws are enacted for all workshops and all workers. (1) Introduced everywhere at same time.

For all that, the French revolutionary method has its specific advantages. It once for all commands the same limit to the working-day in all shops and factories without distinction, whilst English legislation reluctantly yields to the pressure of circumstances, now on this point, now on that, and is getting lost in a hopelessly bewildering tangle of contradictory enactments.¹⁹⁴

schen Arbeiterklasse, daß sie „die Sklaverei der Fabrikakte“ auf ihre Fahne schrieb gegenüber dem Kapital, das männlich für „vollkommne Freiheit der Arbeit“ stritt.¹⁹²

¹⁹² Ure (franz. Übers.), „*Philosophie des Manufactures*“, Paris 1836, t. II, p. 39, 40, 67, 77 etc.

317:1/o Frankreich hinkt langsam hinter England her. Es bedarf der Februarrevolution zur Geburt des Zwölfstundengesetzes,¹⁹³ das viel mangelhafter ist als sein englisches Original.

¹⁹³ In dem *Compte Rendu* des „Internationalen Statistischen Kongresses zu Paris, 1855“, heißt es u.a.: „Das französische Gesetz, das die Dauer der täglichen Arbeit in Fabriken und Werkstätten auf 12 Stunden beschränkt, begrenzt diese Arbeit nicht innerhalb bestimmter fixer Stunden“ (Zeitperioden), „indem nur für die Kinderarbeit die Periode zwischen 5 Uhr vormittags und 9 Uhr abends vorgeschrieben ist. Daher bedient sich ein Teil der Fabrikanten des Rechts, welches ihnen dies verhängnisvolle Schweigen gibt, um tagaus, tagein, vielleicht mit Ausnahme der Sonntage, ohne Unterbrechung arbeiten zu lassen. Sie wenden dazu zwei verschiedene Arbeiterreihen an, von denen keine mehr als 12 Stunden in der Werkstätte zubringt, aber das Werk des Etablissements dauert Tag und Nacht. Das Gesetz ist befriedigt, aber ist es die Humanität ebenfalls?“ Außer dem „zerstörenden Einfluß der Nachtarbeit auf den menschlichen Organismus“, wird auch „der fatale Einfluß der nächtlichen Assoziation beider Geschlechter in denselben trüb erleuchteten Werkstätten“ betont.

Trotzdem macht die französische revolutionäre Methode auch ihre eigentümlichen Vorzüge geltend. Mit einem Schlag diktiert sie allen Ateliers und Fabriken ohne Unterschied dieselbe Schranke des Arbeitstags, während die englische Gesetzgebung bald an diesem Punkt, bald an jenem, dem Druck der Verhältnisse widerwillig weicht und auf dem besten Weg ist, einen neuen

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juristischen Rattenkönig auszubrüten.¹⁹⁴

Footnote 194 gives examples of this legislative tangle in England:

¹⁹⁴ “For instance, there is within my district one occupier who, within the same curtilage, is at the same time a bleacher and dyer under the Bleaching and Dyeing Works Act, a printer under the Print Works Act, and a finisher under the Factory Act.” (Repon of Mr. Baker, in Reports, lic., for October 31st, 1861, p. 20.) After enumerating the different provisions of these Acts, and the complications arising from them, Mr. Baker says: “It will hence appear that it must be very difficult to secure the execution of these three Acts of Parliament where the occupier chooses to evade the law.” But what is assured to the lawyers by this is law-suits.

↓ (2) Second advantage of French method: it is valid for everybody, not only children and women.

On the other hand, the French law proclaims as a principle that which in England was only won in the name of children, minors, and women, and has been only recently for the first time claimed as a general right.¹⁹⁵

¹⁹⁴ „Z.B. in meinem Distrikt, in denselben Fabrikbaulichkeiten, ist derselbe Fabrikant Bleicher und Färber unter dem ‚Bleicherei- und Färberei-Akt‘, Drucker unter dem ‚Printworks-Akt‘ und finisher unter dem ‚Fabrikakt‘ ...“ (Report of Mr. Baker in „Reports etc. for 31st Oct. 1861“, p. 20.) Nach Aufzählung der verschiedenen Bestimmungen dieser Akte und der daher folgenden Komplikation, sagt Herr Baker: „Man sieht, wie schwer es sein muß, die Vollziehung dieser 3 Parlamentsakte zu sichern, wenn der Fabrikeigner das Gesetz zu umgehn beliebt.“ [l.c. p.21.] Was aber den Herrn Juristen dadurch gesichert ist, sind Prozesse.

Andrerseits proklamiert das französische Gesetz prinzipiell, was in England nur im Namen von Kindern, Unmündigen und Frauenzimmern erkämpft und erst neuerdings als allgemeines Recht beansprucht wird.¹⁹⁵

Footnote 195 gives evidence that this generalization is also starting in England:

¹⁹⁵ Thus the Factory Inspectors at last venture to say: “These objections (of capital to the legal limitation of the working-day) must succumb before the broad principle of the rights of labor... There is a time when the master’s right in his workman’s labor ceases, and his time becomes his own, even if there were no exhaustion in the question.” (Reports, 8cc., for 31st Oct., 1862, p. 54.)

¹⁹⁵ So getrauen sich endlich die Fabrikinspektoren zu sagen: „Diese Einwände“ (des Kapitals gegen legale Beschränkung der Arbeitszeit) „müssen unterliegen vor dem großen Grundsatz der Rechte der Arbeit ... es gibt einen Zeitpunkt, an dem des Unternehmers Recht auf die Arbeit seines Arbeiters aufhört und dieser selbst über seine Zeit verfügen kann, auch wenn er noch nicht erschöpft ist.“ („Reports etc. for 31st Oct. 1862“, p. 54.)

Question 878 *What are the advantages and disadvantages of the French revolutionary versus the more pragmatic English method?*

USA: the abolition of slavery was necessary before a vital labor movement could develop. Agitation for the Eight Hour Day was “first fruit of Civil War:”

305:1–2 In the United States of North America, every independent movement of the workers was paralysed so long as slavery disfigured a part of the Republic. Labor cannot emancipate itself in the white skin where in the black it is branded. But out of the death of slavery a new life at once arose. The first fruit of the Civil War was the eight hours’ agitation, that ran with the

318:1–319:1 In den Vereinigten Staaten von Nordamerika blieb jede selbständige Arbeiterbewegung gelähmt, solange die Sklaverei einen Teil der Republik verunstaltete. Die Arbeit in weißer Haut kann sich nicht dort emanzipieren, wo sie in schwarzer Haut gebrandmarkt wird. Aber aus dem Tod der Sklaverei entsproß sofort ein neu verjüngtes Leben. Die erste Frucht des

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seven-leagued boots of the locomotive from the Atlantic to the Pacific, from New England to California.

Bürgerkriegs war die Achtstundenagitation, mit den Siebenmeilenstiefeln der Lokomotive vom Atlantischen bis zum Stillen Ozean ausschreitend, von Neuengland bis nach Kalifornien.

The fundamental role of the limitation of the working-day for any other achievements of the labor movement is stressed in the following resolutions:

The General Congress of labor at Baltimore (August 16th, 1866) declared:

Der allgemeine Arbeiterkongreß zu Baltimore (Aug. 1866) erklärt:

“The first and great necessity of the present, to free the labor of this country from capitalistic slavery, is the passing of a law by which eight hours shall be the normal working-day in all States of the American Union. We are resolved to put forth all our strength until this glorious result is attained.”¹⁹⁶

„Das erste und große Erheischnis der Gegenwart, um die Arbeit dieses Landes von der kapitalistischen Sklaverei zu befreien, ist der Erlaß eines Gesetzes, wodurch 8 Stunden den Normalarbeitstag in allen Staaten der amerikanischen Union bilden sollen. Wir sind entschlossen, alle unsre Macht aufzubieten, bis dies glorreiche Resultat erreicht ist.“¹⁹⁶

Footnote 196 gives the text of a resolution by one attending contingent of workers, presumably at the same congress:

¹⁹⁶ “We, the workers of Dunkirk, declare that the length of time of labor required under the present system is too great, and that, far from leaving the worker time for rest and education, it plunges him into a condition of servitude but little better than slavery. That is why we decide that 8 hours are enough for a working-day, and ought to be legally recognised as enough; why we call to our help that powerful lever, the press; ... and why we shall consider all those that refuse us this help as enemies of the reform of labor and of the rights of the laborer.” (Resolution of the Working Men of Dunkirk, New York State, 1866.)

¹⁹⁶ „Wir, die Arbeiter von Dunkirk, erklären, daß die unter dem jetzigen System erheischte Länge der Arbeitszeit zu groß ist und dem Arbeiter keine Zeit für Erholung und Entwicklung läßt, ihn vielmehr auf einen Zustand der Knechtschaft herabdrückt, der wenig besser als die Sklaverei ist (a condition of servitude but little better than slavery). Deshalb beschlossen, daß 8 Stunden für einen Arbeitstag genügen und legal als genügend anerkannt werden müssen; daß wir zu unsrem Beistand die Presse anrufen, den gewaltigen Hebel ... und alle, die diesen Beistand versagen, als Feinde der Arbeitsreform und Arbeiterrechte betrachten.“ (Beschlüsse der Arbeiter zu Dunkirk, Staat New York, 1866.)

But similar statements also in Europe:

305:3/o At the same time (the beginning of September 1866), the Congress of the International Working Men’s Association at Geneva, on the proposition of the London General Council, resolved that “the limitation of the working-day is a preliminary condition without which all further attempts at improvement and emancipation must prove abortive ... The Congress proposes eight hours as the legal limit of the working-day.”

319:1 Gleichzeitig (Anfang September 1866) beschloß der „Internationale Arbeiterkongreß“ zu Genf auf Vorschlag des Londoner Generalrats: „Wir erklären die Beschränkung des Arbeitstags für eine vorläufige Bedingung, ohne welche alle andren Bestrebungen nach Emanzipation scheitern müssen ... Wir schlagen 8 Arbeitsstunden als legale Schranke des Arbeitstags vor.“

↓ Limitation of working-day necessary before further progress can be made.

306:1–2 Thus the movement of the working-class on both sides of the Atlantic, that

319:2–3 So besiegelt die auf beiden Seiten des Atlantischen Meers instinktiv

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had grown instinctively out of the conditions of production themselves, endorsed the words of the English Factory Inspector, R. J. Saunders:

Further steps towards a reformation of society can never be carried out with any hope of success, unless the hours of labor be limited, and the prescribed limit strictly enforced.¹⁹⁷

¹⁹⁷ Reports, etc., for Oct., 1848, p. 112.

aus den Produktionsverhältnissen selbst erwachsene Arbeiterbewegung den Ausspruch des englischen Fabrikinspektors R. J. Saunders:

Weitere Schritte zur Reform der Gesellschaft sind niemals mit irgendeiner Aussicht auf Erfolg durchzuführen, wenn nicht zuvor der Arbeitstag beschränkt und seine vorgeschriebne Schranke strikt erzwungen wird.“¹⁹⁷

¹⁹⁷ „Reports etc. for 31st Oct. 1848“, p. 112.

Question 879 *Why was the shortening of the labor day termed the condition for any further emancipation of the worker? Did the later history of the labor movement prove Marx's expectations right?*

↓ In order to understand why the shortening of the working-day is so important, we must answer the following question: why do the workers, who are selling their labor-power voluntarily, have to be prevented by law from selling too much of it?

301:3/o It must be acknowledged that our laborer comes out of the process of production other than he entered. In the market he stood as owner of the commodity “labor-power” face to face with other owners of commodities, dealer against dealer. The contract by which he sold to the capitalist his labor-power proved, so to say, in black and white that he disposed of himself freely. The bargain concluded, it is discovered that he was no “free agent,” that the time for which he is free to sell his labor-power is the time for which he is forced to sell it,¹⁹⁸ that in fact the vampire will not lose its hold on him “so long as there is a muscle, a nerve, a drop of blood to be exploited.”¹⁹⁹

319:4/o Man muß gestehn, daß unser Arbeiter anders aus dem Produktionsprozeß herauskommt, als er in ihn eintrat. Auf dem Markt trat er als Besitzer der Ware „Arbeitskraft“ andren Warenbesitzern gegenüber, Warenbesitzer dem Warenbesitzer. Der Kontrakt, wodurch er dem Kapitalisten seine Arbeitskraft verkaufte, bewies sozusagen schwarz auf weiß, daß er frei über sich selbst verfügt. Nach geschlossenem Handel wird entdeckt, daß er „kein freier Agent“ war, daß die Zeit, wofür es ihm freisteht, seine Arbeitskraft zu verkaufen, die Zeit ist, wofür er gezwungen ist, sie zu verkaufen,¹⁹⁸ daß in der Tat sein Sauger nicht losläßt, „solange noch ein Muskel, eine Sehne, ein Tropfen Bluts auszubeuten“¹⁹⁹.

Question 880 *What is the difference which Marx saw between the laborer entering the production process and the laborer coming out of it?*

The change of the worker has two components. First of all, the labor-time which he is free to sell turns out to be the time which he is forced to sell. This transformation will be discussed in more detail in chapter Twenty-Three, see 570:2/o.

Question 881 *Marx claims that the freedom of the laborer to sell his labor-power is really a coercion: he must sell his labor-power. Explain.*

Footnote 198 already gives the transition to a second kind of change among the workers: in order to defend themselves against the onslaught of capital, the workers can no longer act as atomistic individuals but must band their heads together in order to act as a class.

10.7. Effect of English Factory Acts on Other Countries

¹⁹⁸ “The proceedings (the manoeuvres of capital, e.g., from 1848–50) have afforded, moreover, incontrovertible proof of the fallacy of the assertion so often advanced, that operatives need no protection, but may be considered as free agents in the disposal of the only property which they possess—the labor of their hands and the sweat of their brows.” (Reports, etc., for April 30th, 1850, p. 45.) “Free labor (if so it may be termed) even in a free country, requires the strong arm of the law to protect it.” (Reports, etc., for October 31st, 1864, p. 34.) “To permit, which is tantamount to compelling . . . to work 14 hours a day with or without meals,” etc. (Repts., etc., for April 30th, 1863, p. 40.)

¹⁹⁹ Friedrich Engels, l.c., p. 5.

Here is now this other change not only in the footnote but in the main text:

For “protection” against “the serpent of their agonies,” the laborers must band together and, as a class, compel the passing of a law, an all-powerful social barrier that shall prevent the very workers from selling, by voluntary contract with capital, themselves and their families into slavery and death.²⁰⁰

¹⁹⁸ „Diese Machenschaften“ (die Manöver des Kapitals z.B. 1848–1850) „haben überdies den unwiderlegbaren Beweis erbracht, wie falsch die so oft vorgebrachte Behauptung ist, die Arbeiter hätten keinen Schutz nötig, sondern müßten angesehen werden als frei verfügende Besitzer des einzigen Eigentums, das sie haben, der Arbeit ihrer Hände und des Schweißes ihrer Stirn.“ („Reports etc. for 30th April 1850“, p. 45.) „Freie Arbeit, wenn sie überhaupt so genannt werden kann, bedarf zu ihrem Schutze selbst in einem freien Land des starken Armes des Gesetzes.“ („Reports etc. for 31st Oct. 1864, p. 34.) „Zu erlauben, was gleichbedeutend ist mit zwingen, . . . 14 Stunden täglich mit oder ohne Mahlzeiten zu arbeiten usw.“ („Reports etc. for 30th April 1863“, p. 40.)

¹⁹⁹ Friedrich Engels, „Die englische Zehn-stundenbill“, l.c. p. 5.

Zum „Schutz“ gegen die Schlange ihrer Qualen müssen die Arbeiter ihre Köpfe zusammenrotten und als Klasse ein Staatsgesetz erzwingen, ein übermächtiges gesellschaftliches Hindernis, das sie selbst verhindert, durch freiwilligen Kontrakt mit dem Kapital sich und ihr Geschlecht in Tod und Sklaverei zu verkaufen.²⁰⁰

This is the Moore-Aveling translation with the exception of the word “band together,” where Moore-Aveling has “put together.” “Put together” suggests that they

have to consult with each other; “band together” means they have to give up their individual action and act as a group. Fowkes does not say “other than

he entered” but “looking different.” This leaves it open whether there is a real change or not.

“**Zusammenrotten**” is a rather drastic formulation which the usual translations do not capture. People are forced to make some fundamental changes in the ways they relate to each other, in order to be able to make their suffering bearable.

↓ Footnote 200 documents that also in the Factory Reports the workers were deemed to need “protection”:

²⁰⁰ The 10 Hours’ Act has, in the branches of industry that come under it, “put an end to the premature decrepitude of the former long-hour workers.” (Reports, etc., for 31st Oct., 1859, p. 47.) “Capital (in factories) can never be employed in keeping the machinery in motion beyond a limited time, without certain injury to the health and morals of the laborers employed; and they are not in a position to protect themselves.” l.c., p. 8)

²⁰⁰ Die Zehnstundenbill hat in den ihr unterworfenen Industriezweigen „die Arbeiter vor gänzlicher Degeneration gerettet und ihren physischen Zustand beschützt.“ („Reports etc. for 31st Oct. 1859“, p. 47.) „Das Kapital“ (in den Fabriken) „kann niemals die Maschinerie in Bewegung halten über eine begrenzte Zeitperiode, ohne die beschäftigten Arbeiter an ihrer Gesundheit und ihrer Moral zu beschädigen; und sie sind nicht in einer Lage, sich selbst zu schützen. (l.c. p. 8.)

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Question 882 *Why do free laborers need legal “protection”?*

Question 883 *Discuss the objection that the factory acts infringe on the “freedom” of the workers. Draw parallels to the contemporary “right to work” campaigns.*

⇓ This is the birth of something new, but much less celebrated than the Human Rights:

In place of the ornate catalogue of the “inalienable rights of man” comes the modest Magna Charta of a legally limited working-day, which shall make clear “when the time which the worker sells is ended, and when his own begins.”²⁰¹ Quantum mutatus ab illo!

An die Stelle des prunkvollen Katalogs der „unveräußerlichen Menschenrechte“ tritt die bescheidne Magna Charta eines gesetzlich beschränkten Arbeitstags, die „endlich klar-macht, wann die Zeit, die der Arbeiter verkauft, endet und wann die ihm selbst gehörige Zeit beginnt“²⁰¹ Quantum mutatus ab illo!

↑ This is a reference to the end of chapter Six, 186:1, where we go from the sphere of circulation, the kingdom of human rights, to the sphere of production.

²⁰¹ “A still greater boon is the distinction at last made clear between the worker’s own time and his master’s. The worker knows now when that which he sells is ended, and when his own begins; and by possessing a sure foreknowledge of this, is enabled to prearrange his own minutes for his own purposes.” (l.c., p. 52.) “By making them masters of their own time (the Factory Acts) have given them a moral energy which is directing them to the eventual possession of political power” (l.c., p. 47).

²⁰¹ „Einen noch größeren Vorteil bedeutet es, daß endlich klar unterschieden wird zwischen der Zeit, die dem Arbeiter selbst und der, die seinem Unternehmer gehört. Der Arbeiter weiß nun, wann die Zeit, die er verkauft, beendet ist und seine eigne beginnt, und da er dies vorher genau weiß, kann er über seine eignen Minuten für seine eignen Zwecke im voraus verfügen.“ (l.c. p. 52.) „Indem sie“ (die Fabrikgesetze) sie zu Herrn ihrer eignen Zeit gemacht haben, haben sie ihnen eine moralische Energie gegeben, die sie dahinführt, möglicherweise die politische Macht in Besitz zu nehmen.“ (l.c. p. 47.)

⇓ Influence of the proletariat not only good for capital but also for the capitalists.

With suppressed irony, and in very well weighed words, the Factory Inspectors hint that the actual law also frees the capitalist from some of the brutality natural to a man who is a mere embodiment of capital, and that it has given him time for a little “culture.” “Formerly the master had no time for anything but money; the servant had no time for anything but labor” (l.c., p. 48).

Mit verhaltner Ironie und in sehr vorsichtigen Ausdrücken deuten die Fabrikinspektoren an, daß das jetzige Zehnstundengesetz auch den Kapitalisten einigermaßen von seiner naturwüchsigen Brutalität als bloßer Verkörperung des Kapitals befreit und ihm Zeit zu einiger „Bildung“ gegeben habe. Vorher „hatte der Unternehmer für nichts anderes als Geld, der Arbeiter für nichts andres als Arbeit Zeit“. (l.c. p. 48.)

About footnote 201 see also Foner [Fon47, p. 279].

Question 884 *In whose interest were the English factory Acts?*

Question 885 *Why did the state interfere and and not the unions?*

Question 886 *What does the state do in chapter Ten?*

11. Rate and Mass of Surplus-Value

After discussing the rate of surplus-value in chapter Nine, Marx discusses now the mass of surplus-value. The rate must be discussed before the mass because we first have to know the degree at which each worker is exploited (which is a social constant, determined by the status of technology and the class struggle). This degree together with the number of hours worked by each worker and the number of workers working for a given capitalist gives the amount, i.e., the mass of surplus-value appropriated by this capitalist.

↓ The value of labor-power is assumed to be constant. This assumption will be relaxed in the next chapter.

In this chapter, as hitherto, the value of labor-power, and therefore the part of the working day necessary for the reproduction or maintenance of that labor-power, are assumed as given, constant magnitudes.

321:1 Wie bisher wird in diesem Kapitel der Wert der Arbeitskraft, also der zur Reproduktion oder Erhaltung der Arbeitskraft notwendige Teil des Arbeitstags, als gegebene, konstante Größe unterstellt.

11.1. [Four Quantitative Laws Regarding the Mass of Surplus-Value]

11.1.a. [First Law]

The first law says that the mass of surplus-value is equal to variable capital times the rate of surplus-value. Marx derives this in several steps.

↓ Mass of surplus-value per worker = necessary labor times rate of surplus-value.

This premised, with the rate, the mass is at the same time given of the surplus-value that the individual laborer furnishes to the capitalist in a definite period of time. If, e.g., the necessary labor amounts to 6 hours daily, expressed in a quantum of gold = 3 shillings, then 3s. is the daily value of one labor-power or the value of the capital advanced in the buying of one labor-power. If, further, the rate of surplus-value be = 100%, this variable capital of 3s. produces a mass of surplus-value of 3s., or the laborer supplies daily a mass of surplus labor equal to 6 hours.

321:2 Dies also vorausgesetzt, ist mit der Rate zugleich die Masse des Mehrwerts gegeben, die der einzelne Arbeiter dem Kapitalisten in bestimmter Zeitperiode liefert. Beträgt z.B. die notwendige Arbeit täglich 6 Stunden, ausgedrückt in einem Goldquantum von 3 sh. = 1 Taler, so ist der Taler der Tageswert einer Arbeitskraft oder der im Ankauf einer Arbeitskraft vorgeschossene Kapitalwert. Ist ferner die Rate des Mehrwerts 100%, so produziert dies variable Kapital von 1 Taler eine Masse Mehrwert von 1 Taler, oder der Arbeiter liefert täglich eine Masse Mehrarbeit von 6 Stunden.

↓ Variable capital proportional to number of workers employed.

But the variable capital of a capitalist is the expression in money of the total value of all the labor-powers that he employs simul-

321:3 Das variable Kapital ist aber der Geldausdruck für den Gesamtwert aller Arbeitskräfte, die der Kapitalist gleichzeitig

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taneously. Its value is, therefore, equal to the average value of one labor-power, multiplied by the number of labor-powers employed. With a given value of labor-power, therefore, the magnitude of the variable capital varies directly as the number of laborers employed simultaneously. If the daily value of one labor-power = 3s., then a capital of 300s. must be advanced in order to exploit daily 100 labor-powers, of n times 3s., in order to exploit daily n labor-powers.

↑ The size of the variable capital is a sign for the number of workers. One gets the number of worker days by dividing the total variable capital by the daily value of one labor-power.

↓ The same calculation that can be made for the variable capital advanced can also be made for the surplus-value harvested. If one multiplies the number of worker days by the surplus-value generated by one worker in one day, one gets the total amount of surplus-value:

In the same way, if a variable capital of 3s., being the daily value of one labor-power, produce a daily surplus-value of 3s., a variable capital of 300s. will produce a daily surplus-value of 300s., and one of n times 3s. a daily surplus-value of $n \times 3s.$ The mass of the surplus-value produced is therefore equal to the surplus-value which the working day of one laborer supplies, multiplied by the number of laborers employed.

↓ From this follows the first law.

But as further the mass of surplus-value which a single laborer produces, the value of labor-power being given, is determined by the rate of the surplus-value, this law follows: the mass of the surplus-value produced is equal to the amount of the variable capital advanced, multiplied by the rate of surplus-value, in other words: it is determined by the compound ratio between the number of labor-powers exploited simultaneously by the same capitalist and the degree of exploitation of each individual labor-power.

↓ Now a mathematical formulation of the first law:

Let the mass of the surplus-value be S , the surplus-value supplied by the individual laborer in the average day s the variable capital daily advanced in the purchase of one individual labor-power v , the sum total of

verwendet. Sein Wert ist also gleich dem Durchschnittswert einer Arbeitskraft, multipliziert mit der Anzahl der verwandten Arbeitskräfte. Bei gegebenem Wert der Arbeitskraft steht also die Größe des variablen Kapitals in direktem Verhältnis zur Anzahl der gleichzeitig beschäftigten Arbeiter. Ist der Tageswert einer Arbeitskraft = 1 Taler, so ist also ein Kapital vorzuschießen von 100 Talern, um 100, von n Talern, um n Arbeitskräfte täglich zu exploitierten.

321:4 Ebenso: Produziert ein variables Kapital von 1 Taler, der Tageswert einer Arbeitskraft, einen täglichen Mehrwert von 1 Taler, so ein variables Kapital von 100 Talern einen täglichen Mehrwert von 100, und eins von n Talern einen täglichen Mehrwert von 1 Taler $\times n$. Die Masse des produzierten Mehrwerts ist also gleich dem Mehrwert, den der Arbeitstag des einzelnen Arbeiters liefert, multipliziert mit der Anzahl der angewandten Arbeiter.

Da aber ferner die Masse Mehrwert, die der einzelne Arbeiter produziert, bei gegebenem Wert der Arbeitskraft, durch die Rate des Mehrwerts bestimmt ist, so folgt dies erste Gesetz: Die Masse des produzierten Mehrwerts ist gleich der Größe des vorgeschossenen variablen Kapitals multipliziert mit der Rate des Mehrwerts oder ist bestimmt durch das zusammengesetzte Verhältnis zwischen der Anzahl der von demselben Kapitalisten gleichzeitig exploitierten Arbeitskräfte und dem Exploitationsgrad der einzelnen Arbeitskraft.

322:1 Nennen wir also die Masse des Mehrwerts M , den vom einzelnen Arbeiter im Tagesdurchschnitt gelieferten Mehrwert m , das im Ankauf der einzelnen Arbeitskraft täglich vorgeschößne variable Kapital v , die

11.1. [Four Quantitative Laws Regarding the Mass of Surplus-Value]

the variable capital V , the value of an average labor-power p , its degree of exploitation $\frac{a'}{a}$ ($\frac{\text{surplus-labor}}{\text{necessary labor}}$) and the number of laborers employed n ; we have:

$$S = \frac{s}{v} \times V, \quad S = p \times \frac{a'}{a} \times n.$$

Gesamtsumme des variablen Kapitals V , den Wert einer Durchschnitts-Arbeitskraft k , ihren Exploitationsgrad $\frac{a'}{a}$ ($\frac{\text{Mehrbarbeit}}{\text{Notwendige Arbeit}}$)

und die Anzahl der angewandten Arbeiter n , so erhalten wir:

$$M = \frac{m}{v} \times V, \quad M = k \times \frac{a'}{a} \times n.$$

Derivation of the first law: $S = \frac{s}{v} \times V$. Although this law, written in this form, almost looks self-explanatory, probably the best way to derive it is to go over the surplus-value created by one worker and then use V as a measure for the number of workers:

$$\begin{aligned} S &= n \times s \\ &= n \times p \times \frac{a'}{a} \\ &= V \times \frac{s}{v}. \end{aligned} \quad (11.1)$$

because $V = n \times p$ and $\frac{a'}{a} = \frac{s}{v}$.

It is always supposed, not only that the value of an average labor-power is constant, but that the laborers employed by a capitalist are reduced to average laborers. There are exceptional cases in which the surplus-value produced does not increase in proportion to the number of laborers exploited, but then the value of the labor-power does not remain constant.

Es wird fortwährend unterstellt, nicht nur daß der Wert einer Durchschnitts-Arbeitskraft konstant ist, sondern daß die von einem Kapitalisten angewandten Arbeiter auf Durchschnitts-Arbeiter reduziert sind. Es gibt Ausnahmefälle, wo der produzierte Mehrwert nicht verhältnismäßig zur Anzahl der exploitierten Arbeiter wächst, aber dann bleibt auch der Wert der Arbeitskraft nicht konstant.

↑ What are these exceptional cases?

Question 887 Notes about Event outside Class. [2012fa](#), [2010fa](#), [2009fa](#), [2008fa](#).

Question 888 Discuss Anything you Want [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#).

Question 889 Course Evaluation Econ 5080/6080 [2012fa](#), [2011fa](#), [2009fa](#), [2008SP](#), [2007SP](#).

Question 890 Labor Leaflet or Essay for a Labor Newsletter [2010fa](#).

Question 891 Assume that the daily value of one worker's labor-power is $p = \$40$, which is the value product of 2 hours, so that the necessary labor $a = 2$ hours. Let the rate of surplus-value s/v be 300%. How much surplus-value s does a worker produce every day, and how long is the surplus-labor a' every day?

Question 892 With the same assumptions as in the previous question, how much capital must be advanced by a capitalist every day, if he employs $n = 70$ workers? (Assume that he pays out the wages every day). What is the mass of surplus-value produced by his variable capital?

11. Rate and Mass of Surplus-Value

Question 893 Now assume that the capitalist lays off 10 workers and forces the remaining 60 workers to work 9 hours every day instead of the 8 hours before, for the same daily wage of \$40. (This example is parallel to the example used by Marx. Although today such blatant cuts in the hourly wage are rare, modern capitalists get the same effect by increasing the intensity of labor so that they get 9 hours worth of labor in 8 hours without having to pay more wages.) Show that the rate of surplus-value has gone up enough to compensate for the drop in the number of workers, so that the mass of surplus-value remains the same. Did the total value produced by the workers remain the same, too.

↓ Corollary to the first law: declining number of workers can be compensated for by rising rate of surplus-value.

In the production of a definite mass of surplus-value, therefore the decrease of one factor may be compensated by the increase of the other. If the variable capital diminishes, and at the same time the rate of surplus-value increases in the same ratio, the mass of surplus-value produced remains unaltered. If on our earlier assumption the capitalist must advance 300s., in order to exploit 100 laborers a day, and if the rate of surplus-value amounts to 50%, this variable capital of 300s. yields a surplus-value of 150s. or of 100×3 working hours. If the rate of surplus-value doubles, or the working day, instead of being extended from 6 to 9, is extended from 6 to 12 hours and at the same time variable capital is lessened by half, and reduced to 150s., it yields also a surplus-value of 150s. or 50×6 working hours. Diminution of the variable capital may therefore be compensated by a proportionate rise in the degree of exploitation of labor-power, or the decrease in the number of the laborers employed by a proportionate extension of the working day.

322:2/o In der Produktion einer bestimmten Masse Mehrwert kann daher die Abnahme des einen Faktors durch Zunahme des andren ersetzt werden. Wird das variable Kapital vermindert und gleichzeitig in demselben Verhältnis die Rate des Mehrwerts erhöht, so bleibt die Masse des produzierten Mehrwerts unverändert. Muß unter den frühern Annahmen der Kapitalist 100 Taler vorschießen, um 100 Arbeiter täglich zu exploitiern, und beträgt die Rate des Mehrwerts 50%, so wirft dies variable Kapital von 100 einen Mehrwert von 50 Talern ab oder von 100×3 Arbeitsstunden. Wird die Rate des Mehrwerts verdoppelt, oder der Arbeitstag, statt von 6 zu 9, von 6 zu 12 Stunden verlängert, so wirft das um die Hälfte verminderte variable Kapital von 50 Talern ebenfalls einen Mehrwert von 50 Talern ab oder von 50×6 Arbeitsstunden. Verminderung des variablen Kapitals ist also ausgleichbar durch proportionelle Erhöhung im Exploitationsgrad der Arbeitskraft oder die Abnahme in der Anzahl der beschäftigten Arbeiter durch proportionelle Verlängerung des Arbeitstags.

↓ Now Marx draws an important conclusion from this:

Within certain limits therefore the supply of labor exploitable by capital is independent of the supply of laborers.²⁰² On the contrary, a fall in the rate of surplus-value leaves unaltered the mass of the surplus-value produced, if the amount of the variable capital, or number of the laborers employed, increases in the same proportion.

Innerhalb gewisser Grenzen wird die vom Kapital erpreßbare Zufuhr der Arbeit also unabhängig von der Arbeiterzufuhr.²⁰² Umgekehrt läßt Abnahme in der Rate des Mehrwerts die Masse des produzierten Mehrwerts unverändert, wenn proportionell die Größe des variablen Kapitals oder die Anzahl der beschäftigten Arbeiter wächst.

↑ We will see in chapter Twenty-Five how this possibility becomes a reality. ↓ Interesting critique of the demand-supply mechanism:

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²⁰² This elementary law appears to be unknown to the vulgar economists, who, upside-down Archimedes, in the determination of the market-price of labor by supply and demand, imagine they have found the fulcrum by means of which, not to move the world, but to stop its motion.

²⁰² Dies Elementargesetz scheint den Herren von der Vulgärökonomie unbekannt, die, umgekehrte Archimedes, in der Bestimmung der Marktpreise der Arbeit durch Nachfrage und Zufuhr den Punkt gefunden zu haben glauben, nicht um die Welt aus den Angeln zu heben, sondern um sie stillzusetzen.

How does Marx come to the suspicion that this law is unknown to the vulgar economists?

11.1.b. [Second Law]

This replacing, about which the corollary to the first law spoke, cannot go on forever but is limited by the fact that no worker can produce surplus-value for longer than 24 hours a day.

This limit of surplus-value by the length of the day is trivial if one accepts the labor theory of value, but if one does not, then there is no reason to assume such a limit.

Nevertheless, the compensation of a decrease in the number of laborers employed, or of the amount of variable capital advanced by a rise in the rate of surplus-value, or by the lengthening of the working-day, has impassable limits. Whatever the value of labor-power may be, whether the workingtime necessary for the maintenance of the laborer is 2 or 10 hours, the total value that a laborer can produce, day in, day out, is always less than the value in which 24 hours of labor are embodied, less than 12s., if 12s. is the money expression for 24 hours of realised labor. In our former assumption, according to which 6 working hours are daily necessary in order to reproduce the labor-power itself or to replace the value of the capital advanced in its purchase, a variable capital of 1,500s., that employs 500 laborers at a rate of surplus-value of 100% with a 12 hours' working day, produces daily a surplus-value of 1,500s. or of 6×500 working hours. A capital of 300s. that employs 100 laborers a day with a rate of surplus-value of 200% or with a working day of 18 hours, produces only a mass of surplus-value of 600s. or 12×100 working hours; and its total value-product, the equivalent of the variable capital advanced plus the surplus-value, can, day in, day out, never reach the sum of 1,200s. or 24×100 working hours. The absolute limit of the average working day—this being by nature always

323:1/o Indes hat der Ersatz von Arbeiteranzahl oder Größe des variablen Kapitals durch gesteigerte Rate des Mehrwerts oder Verlängerung des Arbeitstags unüberspringbare Schranken. Welches immer der Wert der Arbeitskraft sei, ob daher die zur Erhaltung des Arbeiters notwendige Arbeitszeit 2 oder 10 Stunden betrage, der Gesamtwert, den ein Arbeiter tagaus, tagein produzieren kann, ist immer kleiner als der Wert, worin sich 24 Arbeitsstunden vergegenständlichen, kleiner als 12 sh. oder 4 Taler, wenn dies der Geldausdruck von 24 vergegenständlichten Arbeitsstunden. Unter unserer frühern Annahme, wonach täglich 6 Arbeitsstunden erheischt, um die Arbeitskraft selbst zu reproduzieren oder den in ihrem Ankauf vorgeschossenen Kapitalwert zu ersetzen, produziert ein variables Kapital von 500 Talern, das 500 Arbeiter zu Mehrwert-rate von 100% oder mit zwölfstündigem Arbeitstag verwendet, täglich einen Mehrwert von 500 Talern oder 6×500 Arbeitsstunden. Ein Kapital von 100 Talern, das 100 Arbeiter täglich verwendet zur Mehrwert-rate von 200% oder mit 18stündigem Arbeitstag, produziert nur eine Mehrwert-masse von 200 Talern oder 12×100 Arbeitsstunden. Und sein gesamtes Wertprodukt, Äquivalent des vorgeschossenen variablen Kapitals plus Mehrwert, kann tagaus, tagein niemals die Summe von 400 Talern oder 24×100 Arbeitsstunden erreichen.

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less than 24 hours—sets an absolute limit to the compensation of a reduction of variable capital by a higher rate of surplus-value, or of the decrease of the number of laborers exploited by a higher degree of exploitation of labor-power.

Die absolute Schranke des durchschnittlichen Arbeitstags, der von Natur immer kleiner ist als 24 Stunden, bildet eine absolute Schranke für den Ersatz von vermindertem variablen Kapital durch gesteigerte Rate des Mehrwerts oder von verringerter exploitierten Arbeiteranzahl durch erhöhten Exploitationsgrad der Arbeitskraft.

Question 894 *Into which contradictions do the capitalists run if they continue to lay off a part of the workers in order to exploit the remaining workers more?*

↓ Commentary to second law.

This palpable law is of importance for the clearing up of many phenomena, arising from a tendency (to be worked out later on) of capital to reduce as much as possible the number of laborers employed by it, or its variable constituent transformed into labor-power, in contradiction to its other tendency to produce the greatest possible mass of surplus-value. On the other hand, if the mass of labor-power employed, or the amount of variable capital, increases, but not in proportion to the fall in the rate of surplus-value, the mass of the surplus-value produced, falls.

Dies handgreifliche zweite Gesetz ist wichtig zur Erklärung vieler Erscheinungen, entspringend aus der später zu entwickelnden Tendenz des Kapitals, die von ihm beschäftigte Arbeiteranzahl oder seinen variablen in Arbeitskraft umgesetzten Bestandteil soviel als immer möglich zu reduzieren, im Widerspruch zu seiner anderen Tendenz, die möglichst große Masse von Mehrwert zu produzieren. Umgekehrt. Wächst die Masse der verwandten Arbeitskräfte oder die Größe des variablen Kapitals, aber nicht verhältnismäßig zur Abnahme in der Rate des Mehrwerts, so sinkt die Masse des produzierten Mehrwerts.

11.1.c. [Third Law]

Surplus value proportional only to variable capital, not to the whole capital.

A third law results from the determination, of the mass of the surplus-value produced, by the two factors: rate of surplus-value and amount of variable capital advanced. The rate of surplus-value, or the degree of exploitation of labor-power, and the value of labor-power, or the amount of necessary workingtime being given, it is selfevident that the greater the variable capital, the greater would be the mass of the value produced and of the surplus-value. If the limit of the working-day is given, and also the limit of its necessary constituent, the mass of value and surplus-value that an individual capitalist produces, is clearly exclusively dependent on the mass of labor

324:1/o Ein drittes Gesetz ergibt sich aus der Bestimmung der Masse des produzierten Mehrwerts durch die zwei Faktoren, Rate des Mehrwerts und Größe des vorge-schoßnen variablen Kapitals. Die Rate des Mehrwerts oder den Exploitationsgrad der Arbeitskraft, und den Wert der Arbeitskraft oder die Größe der notwendigen Arbeitseit gegeben, ist es selbstverständlich, daß, je größer das variable Kapital, desto größer die Masse des produzierten Werts und Mehrwerts. Ist die Grenze des Arbeitstags gegeben, ebenso die Grenze seines notwendigen Bestandteils, so hängt die Masse von Wert und Mehrwert, die ein einzelner Kapitalist produziert, offenbar ausschließlich ab

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that he sets in motion. But this, under the conditions supposed above, depends on the mass of labor-power, or the number of laborers whom he exploits, and this number in its turn is determined by the amount of the variable capital advanced. With a given rate of surplus-value, and a given value of labor-power, therefore, the masses of surplus-value produced vary directly as the amounts of the variable capitals advanced.

von der Masse Arbeit, die er in Bewegung setzt. Diese aber hängt, unter den gegebenen Annahmen, ab von der Masse Arbeitskraft oder der Arbeiteranzahl, die er exploitiert, und diese Anzahl ihrerseits ist bestimmt durch die Größe des von ihm vorgeschossenen variablen Kapitals. Bei gegebener Rate des Mehrwerts und gegebenem Wert der Arbeitskraft verhalten sich also die Massen des produzierten Mehrwerts direkt wie die Größen der vorgeschossenen variablen Kapitale.

↓ Reformulation of the third law because not all capital advanced is variable capital:

Now we know that the capitalist divides his capital into two parts. One part he lays out in means of production. This is the constant part of his capital. The other part he lays out in living labor-power. This part forms his variable capital. On the basis of the same mode of social production, the division of capital into constant and variable differs in different branches of production, and within the same branch of production, too, this relation changes with changes in the technical conditions and in the social combinations of the processes of production. But in whatever proportion a given capital breaks up into a constant and a variable part, whether the latter is to the former as 1:2 or 1:10 or 1:x, the law just laid down is not affected by this. For, according to our previous analysis, the value of the constant capital reappears in the value of the product, but does not enter into the newly produced value, the newly created valueproduct. To employ 1,000 spinners, more raw material, spindles, etc., are, of course, required, than to employ 100. The value of these additional means of production however may rise, fall, remain unaltered, be large or small; it has no influence on the process of creation of surplus-value by means of the labor-powers that put them in motion. The law demonstrated above now, therefore, takes this form: the masses of value and of surplus-value produced by different capitals—the value of labor-power being given and its degree of exploitation

Nun weiß man aber, daß der Kapitalist sein Kapital in zwei Teile teilt. Einen Teil legt er aus in Produktionsmitteln. Dies ist der konstante Teil seines Kapitals. Den andren Teil setzt er um in lebendige Arbeitskraft. Dieser Teil bildet sein variables Kapital. Auf Basis derselben Produktionsweise findet in verschiedenen Produktionszweigen verschiedene Teilung des Kapitals in konstanten und variablen Bestandteil statt. Innerhalb desselben Produktionszweige wechselt dies Verhältnis mit wechselnder technischer Grundlage und gesellschaftlicher Kombination des Produktionsprozesses. Wie aber ein gegebenes Kapital immer zerfalle in konstanten und variablen Bestandteil, ob der letztere sich zum erstren verhalte wie 1 : 2, 1 : 10 oder 1 : x, das eben aufgestellte Gesetz wird nicht davon berührt, da früherer Analyse gemäß der Wert des konstanten Kapitals im Produktenwert zwar wiedererscheint, aber nicht in das neugebildete Wertprodukt eingeht. Um 1000 Spinner zu verwenden, sind natürlich mehr Rohmaterialien, Spindeln usw. erheischt, als um 100 zu verwenden. Der Wert dieser zuzusetzenden Produktionsmittel aber mag steigen, fallen, unverändert bleiben, groß oder klein sein, er bleibt ohne irgendeinen Einfluß auf den Verwertungsprozeß der sie bewegenden Arbeitskräfte. Das oben konstatierte Gesetz nimmt also die Form an: Die von verschiedenen Kapitalen produzierten Massen von Wert und Mehrwert verhalten sich bei gegebenem Wert und gleich großem Ex-

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being equal—vary directly as the amounts of the variable constituents of these capitals, *i.e.*, as their constituents transformed into living labor-power.

↓ Law in contradiction to experience, but right now Marx is not going to explain where this discrepancy comes from.

This law clearly contradicts all experience based on plainly visible evidence. Everyone knows that a cotton spinner, who, reckoning the percentage on the whole of his applied capital, employs much constant and little variable capital, does not, on account of this, pocket less profit or surplus-value than a baker, who relatively sets in motion much variable and little constant capital.

exploitationsgrad der Arbeitskraft direkt wie die Größen der variablen Bestandteile dieser Kapitale, d.h. ihrer in lebendige Arbeitskraft umgesetzten Bestandteile.

325:1 Dies Gesetz widerspricht offenbar aller auf den Augenschein gegründeten Erfahrung. Jedermann weiß, daß ein Baumwollspinner, der, die Prozentteile des angewandten Gesamtkapitals berechnet, relativ viel konstantes und wenig variables Kapital anwendet, deswegen keinen kleineren Gewinn oder Mehrwert erbeutet als ein Bäcker, der relativ viel variables und wenig konstantes Kapital in Bewegung setzt.

Question 895 Assume a capitalist advances \$500 every day, \$100 for labor and \$400 for materials and machinery. Another capitalist in a more labor-intensive industry advances also \$500 every day, \$300 for labor and \$200 for materials and machinery. How much surplus-value does each capitalist produce if the rate of surplus-value is 100%? Why does this result “contradict all experience based on appearance”? (p. 421:1/o)

For the solution of this apparent contradiction, many intermediate terms are as yet missing, as from the standpoint of elementary algebra many intermediate terms are required to understand that $0/0$ can represent an actual magnitude. Classical economy, although not formulating the law, holds instinctively to it, because it is a necessary consequence of the general law of value. It tries to rescue the law from collision with contradictory phenomena by a violent abstraction. It will be seen later²⁰³ how the school of Ricardo has come to grief over this stumbling block. Vulgar economy which, indeed, “has really learnt nothing,” here as everywhere sticks to appearances in opposition to the law which regulates and explains them. In opposition to Spinoza, it believes that “ignorance is a sufficient reason.”

Zur Lösung dieses scheinbaren Widerspruchs bedarf es noch vieler Mittelglieder, wie es vom Standpunkt der elementaren Algebra vieler Mittelglieder bedarf, um zu verstehen, daß $0/0$ eine wirkliche Größe darstellen kann. Obgleich sie das Gesetz nie formuliert hat, hängt die klassische Ökonomie instinktiv daran fest, weil es eine notwendige Konsequenz des Wertgesetzes überhaupt ist. Sie sucht es durch gewaltsame Abstraktion vor den Widersprüchen der Erscheinung zu retten. Man wird später²⁰³ sehen, wie die Ricardosche Schule an diesem Stein des Anstoßes gestolpert ist. Die Vulgärökonomie, die „wirklich auch nichts gelernt hat“, pocht hier, wie überall, auf den Schein gegen das Gesetz der Erscheinung. Sie glaubt im Gegensatz zu Spinoza, daß „die Unwissenheit ein hinreichender Grund ist“.

Question 896 Marx argues against empiricism that they claim “ignorance is a sufficient reason.” Elaborate.

Corollary to third law: Growth of surplus-value of the whole society is limited by growth of working population and lengthening of working-day.

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The labor which is set in motion by the total capital of a society, day in, day out, may be regarded as a single collective working day. If, *e.g.*, the number of laborers is a million, and the average working-day of a laborer is 10 hours, the social working day consists of ten million hours. With a given length of this working day, whether its limits are fixed physically or socially, the mass of surplus-value can only be increased by increasing the number of laborers, *i.e.*, of the laboring population. The growth of population here forms the mathematical limit to the production of surplus-value by the total social capital. On the contrary, with a given amount of population, this limit is formed by the possible lengthening of the working day.²⁰⁴ It will, however, be seen in the following chapter that this law only holds for the form of surplus-value dealt with up to the present.

²⁰³ Further particulars will be given in Book IV.

²⁰⁴ “The Labor, that is the economic time, of society, is a given portion, say ten hours a day of a million of people, or ten million hours . . . Capital has its boundary of increase. This boundary may, at any given period, be attained in the actual extent of economic time employed.” (“An Essay on the Political Economy of Nations.” London, 1821, pp. 47, 49.)

325:2 Die Arbeit, die vom Gesamtkapital einer Gesellschaft tagaus, tagein in Bewegung gesetzt wird, kann als ein einziger Arbeitstag betrachtet werden. Ist z.B. die Zahl der Arbeiter eine Million und beträgt der Durchschnittsarbeitstag eines Arbeiters 10 Stunden, so besteht der gesellschaftliche Arbeitstag aus 10 Millionen Stunden. Bei gegebener Länge dieses Arbeitstags, seien seine Grenzen physisch oder sozial gezogen, kann die Masse des Mehrwerts nur vermehrt werden durch Vermehrung der Arbeiteranzahl, d.h. der Arbeiterbevölkerung. Das Wachstum der Bevölkerung bildet hier die mathematische Grenze für Produktion des Mehrwerts durch das gesellschaftliche Gesamtkapital. Umgekehrt. Bei gegebener Größe der Bevölkerung wird diese Grenze gebildet durch die mögliche Verlängerung des Arbeitstags.²⁰⁴ Man wird im folgenden Kapitel sehen, daß dies Gesetz nur für die bisher behandelte Form des Mehrwerts gilt.

²⁰³ Näheres darüber im „Vierten Buch“.

²⁰⁴ „Die Arbeit einer Gesellschaft, das ist die in der Wirtschaft verwandte Zeit, stellt eine gegebene Größe dar, sagen wir 10 Stunden täglich von einer Million Menschen oder 10 Millionen Stunden . . . Das Kapital ist in seinem Wachstum begrenzt. In jeder gegebenen Periode besteht diese Grenze in dem wirklichen Ausmaß der in der Wirtschaft verwandten Zeit.“ („An Essay on the Political Economy of Nations“, London 1821, p. 47, 49.)

11.1.d. [Fourth Law]

Here is another law. (Marx doesn't call it the fourth law but we do.) Minimum of capital is determined by the mass of surplus-value necessary for the capitalist to survive.

From the treatment of the production of surplus-value, so far, it follows that not every sum of money, or of value, is at pleasure transformable into capital. To effect this transformation, in fact, a certain minimum of money or of exchange-value must be presupposed in the hands of the individual possessor of money or commodities. The minimum of variable capital is the cost

326:1/o Aus der bisherigen Betrachtung der Produktion des Mehrwerts ergibt sich, daß nicht jede beliebige Geld- oder Wertsomme in Kapital verwandelbar, zu dieser Verwandlung vielmehr ein bestimmtes Minimum von Geld oder Tauschwert in der Hand des einzelnen Geld- oder Warenbesitzers vorausgesetzt ist. Das Minimum von variablem Kapital ist der Kostenpreis ei-

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price of a single labor-power, employed the whole year through, day in, day out, for the production of surplus-value. If this laborer were in possession of his own means of production, and were satisfied to live as a laborer, he need not work beyond the time necessary for the reproduction of his means of subsistence, say 8 hours a day. He would, besides, only require the means of production sufficient for 8 working hours. The capitalist, on the other hand, who makes him do, besides these 8 hours, say 4 hours' surplus-labor, requires an additional sum of money for furnishing the additional means of production. On our supposition, however, he would have to employ two laborers in order to live, on the surplus-value appropriated daily, as well as, and no better than a laborer, i.e., to be able to satisfy his necessary wants. In this case the mere maintenance of life would be the end of his production, not the increase of wealth; but this latter is implied in capitalist production. That he may live only twice as well as an ordinary laborer, and besides turn half of the surplus-value produced into capital, he would have to raise, with the number of laborers, the minimum of the capital advanced 8 times.

ner einzelnen Arbeitskraft, die das ganze Jahr durch, tagaus, tagein, zur Gewinnung von Mehrwert vernutzt wird. Wäre dieser Arbeiter im Besitz seiner eignen Produktionsmittel und begnüge er sich, als Arbeiter zu leben, so genüge ihm die zur Reproduktion seiner Lebensmittel notwendige Arbeitszeit, sage von 8 Stunden täglich. Er brauchte also auch nur Produktionsmittel für 8 Arbeitsstunden. Der Kapitalist dagegen, der ihn außer diesen 8 Stunden sage 4 Stunden Mehrarbeit verrichten läßt, bedarf einer zusätzlichen Geldsumme zur Beschaffung der zusätzlichen Produktionsmittel. Unter unsrer Annahme jedoch müßte er schon zwei Arbeiter anwenden, um von dem täglich angeeigneten Mehrwert wie ein Arbeiter leben, d.h. seine notwendigen Bedürfnisse befriedigen zu können. In diesem Fall wäre bloßer Lebensunterhalt der Zweck seiner Produktion, nicht Vermehrung des Reichtums, und das letztere ist unterstellt bei der kapitalistischen Produktion. Damit er nur doppelt so gut lebe wie ein gewöhnlicher Arbeiter und die Hälfte des produzierten Mehrwerts in Kapital zurückverwandele, müßte er zugleich mit der Arbeiterzahl das Minimum des vorgeschobnen Kapitals um das Achtfache steigern.

↑ If rate of surplus-value is 50%, then the minimum is 8 workers per capitalist.

Question 897 *What are the ultimate limits of the growth of the mass of the surplus-value which the capitalists in a given society can reap?*

Question 898 *Make an estimate for the minimum number of workers necessary to support each capitalist if the rate of surplus-value is 50%.*

↓ Capitalist is only real capitalist if the number of his workers exceeds this minimum.

Of course he can, like his laborer, take to work himself, participate directly in the process of production, but he is then only a hybrid between capitalist and laborer, a "small master." A certain stage of capitalist production necessitates that the capitalist be able to devote the whole of the time during which he functions as a capitalist, i.e., as personified capital, to the appropriation and therefore control of the labor of others, and to the

Allerdings kann er selbst, gleich seinem Arbeiter, unmittelbar Hand im Produktionsprozesse anlegen, aber ist dann auch nur ein Mittelding zwischen Kapitalist und Arbeiter, ein „kleiner Meister“. Ein gewisser Höhegrad der kapitalistischen Produktion bedingt, daß der Kapitalist die ganze Zeit, während deren er als Kapitalist, d.h. als personifiziertes Kapital funktioniert, zur Aneignung und daher Kontrolle fremder Ar-

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selling of the products of this labor.²⁰⁵

²⁰⁵ “The farmer cannot rely on his own labor, and if he does, I will maintain that he is a loser by it. His employment should be a general attention to the whole: his thresher must be watched, or he will soon lose his wages in corn not threshed out, his mowers, reapers, etc., must be looked after; he must constantly go round his fences; he must see there is no neglect; which would be the case if he was confined to any one spot.” (“An Inquiry into the Connexion between the Present Price of Provisions and the Size of Farms, etc. By a Farmer.” London, 1773, p. 12.) This book is very interesting. In it the genesis of the “capitalist farmer” or “merchant farmer,” as he is explicitly called, may be studied, and his self-glorification at the expense of the small farmer who has only to do with bare subsistence, be noted.

↓ Here a different author, and much later:

^{205 ctd} “The class of capitalists are from the first partially, and they become ultimately completely, discharged from the necessity of the manual labor.” (“Textbook of Lectures on the Political Economy of Nations. By the Rev. Richard Jones.” Hertford 1852. Lecture III., p. 39.)

↓ Quantity into Quality:

The guilds of the middle ages therefore tried to prevent by force the transformation of the master of a trade into a capitalist, by limiting the number of laborers that could be employed by one master within a very small maximum. The possessor of money or commodities actually turns into a capitalist in such cases only where the minimum sum advanced for production greatly exceeds the maximum of the middle ages. Here, as in natural science, is shown the correctness of the law discovered by Hegel (in his “Logic”), that merely quantitative differences beyond a certain point pass into qualitative changes.^{205a}

^{205a} The molecular theory of modern chem-

beit und zum Verkauf der Produkte dieser Arbeit verwenden könne.²⁰⁵

²⁰⁵ „Der Pächter darf nicht auf seiner eigenen Arbeit aufbauen; und wenn er es tut, so wird er meiner Meinung nach dadurch verlieren. Seine Tätigkeit sollte in der Beaufsichtigung des Ganzen bestehen: er muß auf seinen Drescher achten, denn sonst wird bald der Lohn hinausgeworfen sein für Getreide, das nicht ausgedroschen ist; ebenso müssen seine Mäher, Schnitter usw. überwacht werden; er muß ständig seine Zäune nachsehen; er muß aufpassen, ob nichts vernachlässigt wird; das würde der Fall sein, wenn er sich auf einen Punkt beschränken würde.“ ([J. Arbuthnot,] „An Enquiry into the Connection between the Price of Provisions, and the Size of Farms etc.“ By a Farmer, London 1773, p. 12.) Diese Schrift ist sehr interessant. Man kann darin die Genesis des „capitalist farmer“ oder „merchant farmer“, wie er ausdrücklich genannt wird, studieren und seiner Selbstverherrlichung gegenüber dem „small farmer“, dem es wesentlich um die Subsistenz zu tun ist, zuhören.

^{205 ctd} „Die Kapitalistenklasse wird zuerst teilweise und schließlich ganz und gar entbunden von der Notwendigkeit der Handarbeit.“ („Textbook of Lectures on the Polit. Economy of Nations“. By the Rev. Richard Jones, Hertford 1852, Lecture III, p. 39.)

Die Verwandlung des Handwerksmeisters in den Kapitalisten suchte das Zunftwesen des Mittelalters dadurch gewaltsam zu verhindern, daß es die Arbeiteranzahl, die ein einzelner Meister beschäftigen durfte, auf ein sehr geringes Maximum beschränkte. Der Geld- oder Warenbesitzer verwandelt sich erst wirklich in einen Kapitalisten, wo die für die Produktion vorgeschosßene Minimalsumme weit über dem mittelalttrigen Maximum steht. Hier, wie in der Naturwissenschaft, bewährt sich die Richtigkeit des von Hegel in seiner „Logik“ entdeckten Gesetzes, daß bloß quantitative Veränderungen auf einem gewissen Punkt in qualitative Unterschiede umschlagen.^{205a}

^{205a} Die in der modernen Chemie angewand-

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istry first scientifically worked out by Laurent and Gerhardt rests on no other law. (Addition to 3rd Edition.) For the explanation of this statement, which is not very clear to nonchemists, we remark that the author speaks here of the homologous series of carbon compounds, first so named by C. Gerhardt in 1843, each series of which has its own general algebraic formula. Thus the series of paraffins: C_nH_{2n+2} , that of the normal alcohols: $C_nH_{2n+2}O$; of the normal fatty acids: $C_nH_{2n}O_2$ and many others. In the above examples, by the simply quantitative addition of CH_2 to the molecular formula, a qualitatively different body is each time formed. On the share (overestimated by Marx) of Laurent and Gerhardt in the determination of this important fact see Kopp, "Entwicklung der Chemie." München, 1873, pp. 709, 716, and Schorlemmer, "The Rise and Development of Organic Chemistry." London, 1879, p. 54.—F. E.

te, von Laurent und Gerhardt zuerst wissenschaftlich entwickelte Molekulartheorie beruht auf keinem andren Gesetze. {Zusatz zur 3. Ausg.}—Wir bemerken zur Erklärung dieser für den Nichtchemiker ziemlich dunklen Anmerkung, daß der Verfasser hier von den von C. Gerhardt 1843 zuerst so benannten „homologen Reihen“ von Kohlenwasserstoffverbindungen spricht, von denen jede eine eigne algebraische Zusammensetzungsformel hat. So die Reihe der Paraffine: C_nH_{2n+2} ; die der normalen Alkohole: $C_nH_{2n+2}O$; die der normalen fetten Säuren: $C_nH_{2n}O_2$ und viele andre. In obigen Beispielen wird durch einfachen quantitativen Zusatz von CH_2 zur Molekularformel jedesmal ein qualitativ verschiedener Körper gebildet. Über die, von Marx überschätzte, Teilnahme Laurents und Gerhardts an der Feststellung dieser wichtigen Tatsache vgl. Kopp, „Entwicklung der Chemie“, München 1873, S. 709 und 716, und Schorlemmer, „Rise and Progress of Organic Chemistry“, London 1879, p. 54.—F. E.

Exam Question 899 *Why did the early capitalists have more workers work together than had been customary in pre-capitalistic production?*

The concluding paragraph about the fourth law alludes to a different criterion for the minimum: namely, the amount of machinery and scale of production necessary for technology.

The minimum of the sum of value that the individual possessor of money or commodities must command, in order to metamorphose himself into a capitalist, changes with the different stages of development of capitalist production, and is at given stages different in different spheres of production, according to their special and technical conditions. Certain spheres of production demand, even at the very outset of capitalist production, a minimum of capital that is not as yet found in the hands of single individuals. This gives rise partly to state subsidies to private persons, as in France in the time of Colbert, and as in many German states up to our own epoch, partly to the formation of societies with legal monopoly for the exploitation of certain branches of industry and commerce, the forerunners of our modern joint stock companies.²⁰⁶

327:1/o Das Minimum der Wertsomme, worüber der einzelne Geld- oder Warenbesitzer verfügen muß, um sich in einen Kapitalisten zu entpuppen, wechselt auf verschiedenen Entwicklungsstufen der kapitalistischen Produktion und ist, bei gegebener Entwicklungsstufe, verschieden in verschiedenen Produktionssphären, je nach ihren besondern technischen Bedingungen. Gewisse Produktionssphären erheischen schon in den Anfängen der kapitalistischen Produktion ein Minimum von Kapital, das sich noch nicht in der Hand einzelner Individuen vorfindet. Dies veranlaßt teils Staatssubsidien an solche Private, wie in Frankreich zur Zeit Colberts und wie in manchen deutschen Staaten bis in unsre Epoche hinein, teils die Bildung von Gesellschaften mit gesetzlichem Monopol für den Betrieb gewisser Industrie- und Handelszweige²⁰⁶—die Vorläufer der modernen Aktiengesellschaften.

²⁰⁶ Martin Luther calls these kinds of institutions: “The Company Monopolia.”

²⁰⁶ „Die Gesellschaft Monopolia“ nennt Martin Luther derartige Institute.

11.2. [Changed Character of Production Process]

The rest of the chapter is a transition to the relative surplus-value. Marx discusses how already under formal subsumption (this word not used here, but there is a parallel discussion in “Resultate” where this word is used) the production process changes its character.

We shall not examine in detail the changes which take place in the relation between the capitalist and the wage laborer during the process of production, and therefore also not the further form determinations of capital itself. Only a few main points shall be emphasized here.

Within the process of production, as we have seen, capital acquired the command over labor, *i.e.*, over functioning labor-power or the laborer himself. Personified capital, the capitalist takes care that the laborer does his work regularly and with the proper degree of intensity.

↑ If a petty commodity producer works at an intensity and pace that is below the social average for his branch of production, he or she will be penalized by the market, since the value of his or her product is determined by the labor of average intensity needed. But apart from this, the market does not force him or her to change his work speed. It is otherwise with a wage laborer: the wage-laborer is forced to work at the normal intensity.

Capital further developed into a coercive relation, which compels the working class to do more work than the narrow round of its own life wants prescribes. As a producer of the activity of others, as a pumper-out of surplus labor and exploiter of labor-power, it surpasses in energy, disregard of bounds, recklessness and efficiency, all earlier systems of production based on directly compulsory labor.

↑ This is a memorable sentence. Too bad it is buried in a chapter which is not often read.

At first, capital subordinates labor on the basis of the technical conditions in which it historically finds it. It does not, therefore, change immediately the mode of production. The production of surplus-value—in the form hitherto considered by us—by means of simple extension of the working

328:1 Wir halten uns nicht beim Detail der Veränderungen auf, die das Verhältnis von Kapitalist und Lohnarbeiter im Verlaufe des Produktionsprozesses erfuh, also auch nicht bei den weitren Fortbestimmungen des Kapitals selbst. Nur wenige Hauptpunkte seien hier betont.

328:2 Innerhalb des Produktionsprozesses entwickelte sich das Kapital zum Kommando über die Arbeit, d.h. über die sich betätigende Arbeitskraft oder den Arbeiter selbst. Das personifizierte Kapital, der Kapitalist, paßt auf, daß der Arbeiter sein Werk ordentlich und mit dem gehörigen Grad von Intensität verrichte.

328:3 Das Kapital entwickelte sich ferner zu einem Zwangsverhältnis, welches die Arbeiterklasse nötigt, mehr Arbeit zu verrichten, als der enge Umkreis ihrer eignen Lebensbedürfnisse vorschrieb. Und als Produzent fremder Arbeitsamkeit, als Auspumper von Mehrarbeit und Exploiteur von Arbeitskraft übergipfelt es an Energie, Maßlosigkeit und Wirksamkeit alle frühern auf direkter Zwangsarbeit beruhenden Produktionssysteme.

328:4 Das Kapital ordnet sich zunächst die Arbeit unter mit den technischen Bedingungen, worin es sie historisch vorfindet. Es verändert daher nicht unmittelbar die Produktionsweise. Die Produktion von Mehrwert in der bisher betrachteten Form, durch einfache Verlängerung des Arbeitstags,

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day, proved, therefore, to be independent of any change in the mode of production itself. It was not less active in the old fashioned bakeries than in the modern cotton factories.

If we consider the process of production from the point of view of the simple labor process, the laborer stands in relation to the means of production, not in their quality as capital, but as the mere means and material of his own intelligent productive activity. In tanning, *e.g.*, he deals with the skins as his simple object of labor. It is not the capitalist whose skin he tans. But it is different as soon as we deal with the process of production from the point of view of the process of creation of surplus-value. The means of production are at once changed into means for the absorption of the labor of others. It is now no longer the laborer that employs the means of production, but the means of production that employ the laborer. Instead of being consumed by him as material elements of his productive activity, they consume him as the ferment necessary to their own life-process, and the life-process of capital consists only in its movement as value constantly expanding, constantly multiplying itself. Furnaces and workshops that stand idle by night, and absorb no living labor, are "a mere loss" to the capitalist. Hence, furnaces and workshops constitute lawful claims upon the night labor of the work-people. The simple transformation of money into the material factors of the process of production, into means of production, transforms the latter into a title and a right to the labor and surplus-labor of others.

Is the inversion of the relation of dead and living labor in the process of valorization an instance of the fetish-like character of commodities? It seems so!

Question 900 *Is the inversion of the relation of dead and living labor in the process of valorization an instance of the fetish-like character of capital?*

An example will show, in conclusion, how this inversion and even perversion, peculiar to and characteristic of capitalist production,

erschien daher von jedem Wechsel der der Produktionsweise selbst unabhängig. Sie war in der altmodischen Bäckerei nicht minder wirksam als in der modernen Baumwollspinnerei.

328:5/o Betrachten wir den Produktionsprozeß unter dem Gesichtspunkt des Arbeitsprozesses, so verhielt sich der Arbeiter zu den Produktionsmitteln nicht als Kapital, sondern als bloßem Mittel und Material seiner zweckmäßigen produktiven Tätigkeit. In einer Gerberei z.B. behandelt er die Felle als seinen bloßen Arbeitsgegenstand. Es ist nicht der Kapitalist, dem er das Fell gerbt. Anders, sobald wir den Produktionsprozeß unter dem Gesichtspunkt des Verwertungsprozesses betrachten. Die Produktionsmittel verwandeln sich sofort in Mittel zur Einsaugung fremder Arbeit. Es ist nicht mehr der Arbeiter, der die Produktionsmittel anwendet, sondern es sind die Produktionsmittel, die den Arbeiter anwenden. Statt von ihm als stoffliche Elemente seiner produktiven Tätigkeit verzehrt zu werden, verzehren sie ihm als Ferment ihres eignen Lebensprozesses, und der Lebensprozeß des Kapitals besteht nur in seiner Bewegung als sich selbst verwertender Wert. Schmelzöfen und Arbeitsgebäude, die des Nachts ruhn und keine lebendige Arbeit einsaugen, sind „reiner Verlust“ („mere loss“) für den Kapitalisten. Darum konstituieren Schmelzöfen und Arbeitsgebäude einen „Anspruch auf die Nachtarbeit“ der Arbeitskräfte. Die bloße Verwandlung des Geldes in gegenständliche Faktoren des Produktionsprozesses, in Produktionsmittel, verwandelt letztere in Rechtstitel und Zwangstitel auf fremde Arbeit und Mehrarbeit.

Wie diese der kapitalistischen Produktion eigentümliche und sie charakterisierende Verkehrung, ja Verrückung des Verhältnis-

of the relation between dead and living labor, between value and the force that creates value, mirrors itself in the consciousness of capitalists. During the revolt of the English factory lords between 1848 and 1850, “the head of one of the oldest and most respectable houses in the West of Scotland, Messrs. Carlile Sons & Co., of the linen and cotton thread factory at Paisley, a company which has now existed for about a century, which was in operation in 1752, and four generations of the same family have conducted it” ... this “very intelligent gentleman” then wrote a letter²⁰⁷ in the *Glasgow Daily Mail* of April 25th, 1849, with the title, “The relay system,” in which among other things the following grotesquely naïve passage occurs:

²⁰⁷ Reports of Insp. of Fact., April 30th, 1849, p. 59.

“Let us now ... see what evils will attend the limiting to 10 hours the working of the factory ... They amount to the most serious damage to the mill owner’s prospects and property. If he (i.e., his “hands”) worked 12 hours before, and is limited to 10, then every 12 machines or spindles in his establishment shrink to 10, and should the works be disposed of, they will be valued only as 10, so that a sixth part would thus be deducted from the value of every factory in the country.”²⁰⁸

²⁰⁸ I.c., p. 60. Factory Inspector Stuart, himself a Scotchman, and in contrast to the English Factory Inspectors, quite taken captive by the capitalistic method of thinking, remarks expressly on this letter which he incorporates in his report that it is “the most useful of the communications which any of the factoryowners working with relays have given to those engaged in the same trade, and which is the most calculated to remove the prejudices of such of them as have scruples respecting any change of the arrangement of the hours of work.”

ses von toter und lebendiger Arbeit, von Wert und wertschöpferischer Kraft, sich im Bewußtsein der Kapitalistenköpfe abspiegelt, zeige schließlich noch ein Beispiel. Während der englischen Fabrikantenrevolte von 1848–1850 schrieb „der Chef der Leinen- und Baumwollspinnerei zu Paisley, einer der ältesten und respektabelsten Firmen von Westschottland, der Kompagnie Carlile, Söhne und Co., die seit 1752 besteht und Generation nach Generation von derselben Familie geführt wird“ — dieser äußerst intelligente Gentleman also schrieb in die „Glasgow Daily Mail“ vom 25. April 1849 einen Brief²⁰⁷ unter dem Titel: „Das Relaisystem“, worin u.a. folgende grotesk naive Stelle unterläuft:

²⁰⁷ „Reports of Insp. of Fact. for 30th April 1849“, p. 59.

329:1 „Laßt uns nun die Übel betrachten, die aus einer Reduktion der Arbeitszeit von 12 auf 10 Stunden fließen ... Sie ‚belaufen‘ sich auf die allerernsthafte Beschädigung der Aussichten und des Eigentums des Fabrikanten. Arbeitete er“ (d.h. seine „Hände“) „12 Stunden und wird er auf 10 beschränkt, dann schrumpfen je 12 Maschinen oder Spindeln seines Etablissements auf 10 zusammen (then every 12 machines or spindles, in his establishment, shrink to 10), und wollte er seine Fabrik verkaufen, so würden sie nur als 10 gewertschätzt werden, so daß so ein sechster Teil vom Wert einer jeden Fabrik im ganzen Lande abgezogen würde.“²⁰⁸

²⁰⁸ I.c. p. 60. Fabrikinspektor Stuart, selbst Schotte, und im Gegensatz zu den englischen Fabrikinspektoren ganz in kapitalistischer Denkart befangen, bemerkt ausdrücklich, dieser Brief, den er seinem Bericht einverleibt, „sei die allernützlichste Mitteilung, die irgendeiner der Fabrikanten, welche das Relaisystem anwenden, gemacht, und ganz besonders darauf berechnet, die Vorurteile und Bedenken gegen jenes System zu beseitigen“.

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To this West of Scotland bourgeois brain, inheriting the accumulated capitalistic qualities of "four generations," the value of the means of production, spindles, etc., is so inseparably mixed up with their property, as capital, to expand their own value, and to swallow up daily a definite quantity of the unpaid labor of others, that the head of the firm of Carlile & Co. actually imagines that if he sells his factory, not only will the value of the spindles be paid to him, but, in addition, their power of annexing surplus-value, not only the labor which is embodied in them, and is necessary to the production of spindles of this kind, but also the surplus-labor which they help to pump out daily from the brave Scots of Paisley, and for that very reason he thinks that with the shortening of the working day by 2 hours, the selling price of 12 spinning machines dwindles to that of 10!

330:1 Diesem erbangestammten Kapitalhirn von Westschottland schwimmt der Wert der Produktionsmittel, Spindeln usw., so sehr mit ihrer Kapitaleigenschaft, sich selbst zu verwerten oder täglich ein bestimmtes Quantum fremder Gratisarbeit einzuschlucken, daß der Chef des Hauses Carlile und Co. in der Tat wähnt, beim Verkauf seiner Fabrik werde ihm nicht nur der Wert der Spindeln gezahlt, sondern obendrein ihre Verwertung, nicht nur die Arbeit, die in ihnen steckt und zur Produktion von Spindeln der selben Art nötig ist, sondern auch die Mehrarbeit, die sie täglich aus den braven Westschotten von Paisley auspumpen helfen, und ebendeshalb meint er, schrumpfe mit der Verkürzung des Arbeitstags um zwei Stunden der Verkaufspreis von je 12 Spinnmaschinen auf den von je 10 zusammen!

Question 901 *Explain and illustrate how the relation of dead and living labor is completely inverted in capitalistic production.*

Part IV.

The Production of Relative Surplus-Value

12. The Concept of Relative Surplus-Value

12.1. [Introduction of Relative Surplus-Value]

Question 902 Compare capitalism with simple commodity production regarding how technical innovation benefits (a) the producer and (b) society at large. [2013fa](#), [1996ut](#).

As in chapter Ten, [239:2/o](#), Marx represents the working day as a two-part interval $a—b—c$, where $a—b$ is necessary labor and $b—c$ surplus labor:

317:1 That portion of the working day which produces a mere equivalent for the value of the labor-power paid by the capitalist has so far been treated as a constant magnitude. Under given conditions of production at a given stage in the economic development of society, it is indeed constant. Beyond this necessary labor-time, the worker continued to work for 2, 3, 4, 6, etc. hours. The rate of surplus-value and the length of the working day depended on the length of this extension. Although the necessary labor-time was constant, the total working day was variable.

331:1 Der Teil des Arbeitstags, der bloß ein Äquivalent für den vom Kapital gezahlten Wert der Arbeitskraft produziert, galt uns bisher als konstante Größe, was er in der Tat ist unter gegebenen Produktionsbedingungen, auf einer vorhandenen ökonomischen Entwicklungsstufe der Gesellschaft. Über diese seine notwendige Arbeitszeit hinaus konnte der Arbeiter 2, 3, 4, 6 usw. Stunden arbeiten. Von der Größe dieser Verlängerung hingen Rate des Mehrwerts und Größe des Arbeitstags ab. War die notwendige Arbeitszeit konstant, so dagegen der Gesamtarbeitstag variabel.

↑ Until now, the assumptions were: necessary labor constant, total day variable. This variability was the subject of chapter Ten, see [240:1](#). ↓ Now Marx makes the assumption that the total day is constant. Marx also maintains, for now, the assumption that the necessary labor is fixed.

Question 905 How does Marx define the concept of necessary labor if the capitalist pays his workers less than the value of the labor-power? Is it the time they need to produce an equivalent of the value of their labor-power, or is it the time the workers need to produce an equivalent of the wage they actually get? [2013fa](#), [1996ut](#), [1996sp](#), [1995ut](#).

Now suppose a working day with a given length and division between necessary labor and surplus labor. Let the whole line AC , $A—B—C$, represent, for example, a working day of 12 hours; the section AB 10 hours of necessary labor, and the section BC 2 hours of surplus labor.

Unterstelle jetzt einen Arbeitstag, dessen Größe und dessen Teilung in notwendige Arbeit und Mehrarbeit gegeben sind. Die Linie ac , $a—b—c$, stelle z.B. einen zwölfstündigen Arbeitstag vor, das Stück ab 10 Stunden notwendige Arbeit, das Stück bc 2 Stunden Mehrarbeit.

This is not just a hypothetical question, but it was the situation after passage of the Ten Hour Bills. The fixation of the work day to ten hours did not mean the end of capitalism. As before, capitalists were cutting costs and/or increasing output in order to increase their profits. And they still seemed to succeed. But how were they doing it now? According to the labor theory of value, profits can rise only if the unpaid labor of the laborers rises. The question before us is therefore:

How can the production of surplus-value be increased, i.e. how can surplus labor be prolonged, without any prolongation, or independently of any prolongation, of the line AC ?

Wie kann nun die Produktion von Mehrwert vergrößert, d.h. die Mehrarbeit verlängert werden, ohne jede weitere Verlängerung oder unabhängig von jeder weiteren Verlängerung von ac ?

As in other situations in *Capital*, Marx has set up the question in such a way that a simple solution suggests itself: the capitalists have to push b to the left. This is the only possibility.

317:2/o Although the boundaries of the working day, A and C , are given, it would seem possible to lengthen the line BC (other than by extending it beyond its end point C , which is also the end of the working day AC) by pushing back its starting point B in the direction of A .

331:2/o Trotz gegebner Grenzen des Arbeitstags ac scheint bc verlängerbar, wenn nicht durch Ausdehnung über seinen Endpunkt c , der zugleich der Endpunkt des Arbeitstags ac ist, so durch Verschiebung seines Anfangspunkts b in entgegengesetzter Richtung nach a hin.

Question 906 According to Marx, the only way to increase profits is to shorten the portion of the day during which the workers produce an equivalent of their wage, and to extend that portion of the day when they create unreimbursed new value for the capitalist. Are the capitalists aware of it that all their cost cutting measures, if successful, go at the expense of their workers? 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa.

But this solution is derived from the geometry of our little interval, which is a model of the working day but not the working day itself. Does this solution represent a real situation in the economy of which the interval is an image? In order to make the transition from the geometric model to the economy itself, Marx constructs a concrete example in which all numbers are known:

Assume that $B'B$ in the line $A-B-C$ is equal to half of BC , or to 1 hour's labor-time. If now, in the 12-hour working day AC , point B is moved to B' , then BC becomes $B'C$, the surplus labor increases by one half, from 2 hours to 3 hours, although the working day remains 12 hours as before.

Nimm an, $b'b$ in $a-b-c$ sei gleich der Hälfte von bc oder gleich einer Arbeitsstunde. Wird nun in dem zwölfstündigen Arbeitstag ac der Punkt b nach b' verrückt, so dehnt sich bc aus zu $b'c$, die Mehrarbeit wächst um die Hälfte, von 2 auf 3 Stunden, obgleich der Arbeitstag nach wie vor nur 12 Stunden zählt.

↑ Marx is proceeding here at a snail's pace. As expected, the shift from B to B' increases surplus-value. This is consistent with our experience of capitalism still thriving after the passage of the ten-hour laws. ↓ But what are the implications of this shift for the necessary labor?

This extension of the surplus labor-time from BC to $B'C$, from 2 hours to 3 hours, is however evidently impossible without a

Diese Ausdehnung der Mehrarbeit von bc auf $b'c$, von 2 auf 3 Stunden, ist aber offenbar unmöglich ohne gleichzeitige Zusam-

12. Concept of Relative Surplus-Value

simultaneous contraction of the necessary labor-time from AB to AB' , from 10 hours to 9 hours. The prolongation of surplus labor would be accompanied by an equal shortening of necessary labor. A portion of the labor-time previously consumed, in effect, for the worker's own benefit, would be converted into labor-time expended for the capitalist. It would not be the length of the working day that changes, but its division into necessary labor-time and surplus labor-time.

menziehung der notwendigen Arbeit von ab auf ab' , von 10 auf 9 Stunden. Der Verlängerung der Mehrarbeit entspräche die Verkürzung der notwendigen Arbeit, oder ein Teil der Arbeitszeit, die der Arbeiter bisher in der Tat für sich selbst verbraucht, verwandelt sich in Arbeitszeit für den Kapitalisten. Was verändert, wäre nicht die Länge des Arbeitstags, sondern seine Teilung in notwendige Arbeit und Mehrarbeit.

Fowkes (Moore-Aveling): "The prolongation of (the) surplus labor would correspond to a shortening of (the) necessary labor." But

Marx has it exactly the other way round: "To the prolongation of surplus labor would correspond a shortening of necessary labor." In

the translation used here, "the prolongation of surplus labor would be accompanied by an equal shortening of necessary labor."

↑ Surplus-value can only increase if necessary labor becomes shorter. ↓ But this does not seem possible! If the length of the working-day is given, and the value of labor-power is given, then surplus-value is given and cannot be reduced.

In the translation of Marx's numerical examples that follow, the English currency used by Marx is converted into a decimal currency (dollars), so that it is easier for the reader to follow the math.

318:1/o On the other hand, the magnitude of surplus labor is evidently given when the length of the working day and the value of labor-power are given. The value of labor-power, i.e. the labor-time necessary to produce labor-power, determines the labor-time necessary for the reproduction of the value of labor-power. If 1 hour of work is represented in 12 cents, and the value of a day's labor-power is \$1.20, the worker must work 10 hours every day in order to replace the value paid by capital for his labor-power, or to produce an equivalent for the value of the means of subsistence he needs to consume every day. Given the value of these means of subsistence, the value of his labor-power can be calculated;¹ and given the value of his labor-power, the length of his necessary labor-time can be calculated. The duration of the surplus labor, however, is arrived at by subtracting the necessary labor-time from the total working day: 10 from 12 leaves 2, and it is not evident how, under the given conditions, the surplus labor could possibly

332:1/o Andererseits ist die Größe der Mehrarbeit offenbar selbst gegeben mit gegebener Größe des Arbeitstags und gegebenem Wert der Arbeitskraft. Der Wert der Arbeitskraft, d.h. die zu ihrer Produktion erheischte Arbeitszeit, bestimmt die zur Reproduktion ihres Werts notwendige Arbeitszeit. Stellt sich eine Arbeitsstunde in einem Goldquantum von einem halben Shilling oder 6 d. dar, und beträgt der Tageswert der Arbeitskraft 5 sh., so muß der Arbeiter täglich 10 Stunden arbeiten, um den ihm vom Kapital gezahlten Tageswert seiner Arbeitskraft zu ersetzen oder ein Äquivalent für den Wert seiner notwendigen täglichen Lebensmittel zu produzieren. Mit dem Wert dieser Lebensmittel ist der Wert seiner Arbeitskraft,¹ mit dem Wert seiner Arbeitskraft ist die Größe seiner notwendigen Arbeitszeit gegeben. Die Größe der Mehrarbeit aber wird erhalten durch Subtraktion der notwendigen Arbeitszeit vom Gesamtarbeitstag. Zehn Stunden subtrahiert von zwölf lassen zwei, und es ist nicht abzu-

be prolonged beyond 2 hours.

sehen, wie die Mehrarbeit unter den gegebenen Bedingungen über zwei Stunden hinaus verlängert werden kann.

↓ Footnote 1 stresses through the voices of many economists that the value of labor-power is given, which contradicts our implication of a shorter necessary labor.

¹ The value of his average daily wages is determined by what the worker needs ‘so as to live, labor, and generate’ [Pet91, p. 64]. ‘The price of labor is always constituted of the price of necessities . . . Whenever . . . the laboring man’s wages will not, suitably to his low rank and station, as a laboring man, support such a family as is often the lot of many of them to have’, he is not receiving the proper wages [Van34, p. 15]. ‘The simple worker, who possesses nothing but his arms and his industriousness, has nothing unless he manages to sell his labor to others . . . In every kind of labor, it must happen, and it does in fact happen, that the wage of the worker is limited to what he needs to secure his own subsistence’ (Turgot, *Reflexions*, etc., in *Oeuvres*, ed. Daire, Vol. I, p. 10). ‘The price of the necessities of life is, in fact, the cost of producing labor’ [Mal15, p. 48, Note]

¹ „Der Wert des täglichen Durchschnittslohns ist bestimmt durch das, was der Arbeiter braucht, um zu leben, zu arbeiten und sich fortzupflanzen“. [Pet91, p. 64] „Der Preis der Arbeit wird immer vom Preis der notwendigen Lebensmittel bestimmt.“ Der Arbeiter erhält nicht den entsprechenden Lohn, „wann immer . . . der Lohn des Arbeiters nicht hinreicht eine so große Familie, wie sie das Los vieler von ihnen ist, entsprechend seinem niedrigen Stand und als Arbeiter zu ernähren.“ [Van34, p. 15] „Der einfache Arbeiter, der nichts als seine Arme und seinen Fleiß besitzt, hat nichts, außer wenn es ihm gelingt, seine Arbeit an andre zu verkaufen . . . Bei jeder Art Arbeit muß es dahin kommen, und kommt es in der Tat dahin, daß der Lohn des Arbeiters auf das begrenzt ist, was er notwendig zu seinem Lebensunterhalt braucht.“ (Turgot, „*Reflexions* etc.“, „*Oeuvres*“, éd. Daire, t. I, p. 10.) „Der Preis der Subsistenzmittel ist in der Tat gleich den Kosten der Produktion der Arbeit.“ [Mal15, p. 48, Note]

Question 908 Turgot wrote: “In every kind of labor, it must happen, and it does in fact happen, that the wage of the worker is limited to what he needs to secure his own subsistence.” Why is this so? Is this still valid today? 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007fa, 2007SP.

We are at an impasse. The capitalist wants to change the division of the working-day into necessary and surplus-labor in his favor. Not only is it his motivation, he seems to be successful at it. Capitalism is thriving, profits are growing, despite the limits on the working-day. But from the argument given it seems that the laws of economics do not permit this.

As in the other impasse situations, the resolution consists in opening up the inquiry, by bringing in things which were until now not considered. But this time, the resolution will not be given in one step but in two steps. Knocking at all the walls which box him in, in order to see whether they are hollow, Marx first investigates the wall which seems the most hollow because of the obvious market power of the capitalists. He asks: can these continued profits be explained by the capitalists violating the law of value?

Of course, the capitalist could, instead of \$1.20, pay the worker \$1.08 or even less. 9 hours’ labor-time would be sufficient to reproduce this value of \$1.08; and consequently 3 hours of surplus labor, instead of 2, would accrue to the capitalist. The surplus-value would rise from 24 cents to

Allerdings mag der Kapitalist statt 5 sh. dem Arbeiter nur 4 sh. 6 d. oder noch weniger zahlen. Zur Reproduktion dieses Werts von 4 sh. 6 d. würden 9 Arbeitsstunden genügen, von dem zwölfstündigen Arbeitstag daher 3 statt 2 Stunden der Mehrarbeit anheimfallen und der Mehrwert selbst von 1 sh. auf

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36 cents. This result, however, could be attained only by depressing the wage of the worker below the value of his labor-power. With the \$1.08, which he produces in 9 hours, he commands one-tenth less of the means of subsistence than before, and consequently the reproduction of his labor-power can take place only in a stunted way. The surplus labor would in this case be prolonged only by transgressing its normal limits; its domain would be extended only by a usurpation of part of the domain of necessary labor-time.

↑ Marx does *not* say here that it is impossible to shorten the necessary labor by lengthening the surplus labor. It *is* possible and happens often. ↓ Nevertheless Marx will not discuss it here.

Despite the important part which this method plays in practice, we are barred from considering it here by our assumption, that all commodities, including labor-power, are bought and sold at their full values.

1 sh. 6 d. steigen. Dies Resultat wäre jedoch nur erzielt durch Herabdrückung des Lohns des Arbeiters unter den Wert seiner Arbeitskraft. Mit den 4 sh. 6 d., die er in 9 Stunden produziert, verfügt er über 1/10 weniger Lebensmittel als vorher, und so findet nur eine verkümmerte Reproduktion seiner Arbeitskraft statt. Die Mehrarbeit würde hier nur verlängert durch Überschreitung ihrer normalen Grenzen, ihre Domäne nur ausgedehnt durch usurpatorischen Abbruch von der Domäne der notwendigen Arbeitszeit.

Trotz der wichtigen Rolle, welche diese Methode in der wirklichen Bewegung des Arbeitslohnes spielt, ist sie hier ausgeschlossen durch die Voraussetzung, daß die Waren, also auch die Arbeitskraft, zu ihrem vollen Wert gekauft und verkauft werden.

Question 909 Marx clearly excludes, in 430:1/o, the discussion of situations where wages fall below the value of labor-power. Does he also exclude the discussion of situations where wages rise above the value of labor-power? (Compare 655:2 and 747:2–750:0.)

Question 910 Do you know examples where the working class responded through direct class action or sought political intervention because wages fell below the value of the habitual means of subsistence? [2013fa](#).

There are good reasons for the assumption that labor-power is paid its full price. A deviation from this can only allow a short-term boost in profits which will however create problems for the capitalist system later on, since it undermines the development of the working-class. But capitalism is genuinely thriving in the long run, therefore deviations of the price of labor-power from its value cannot be the explanation. Therefore only one possible explanation remains:

Once we assume this, the labor-time necessary for the production of labor-power, or for the reproduction of its value, cannot be lessened by a fall in the worker's wages below the value of his labor-power, but only by a fall in this value itself.

Dies einmal unterstellt, kann die zur Produktion der Arbeitskraft oder zur Reproduktion ihres Werts notwendige Arbeitszeit nicht abnehmen, weil der Lohn des Arbeiters unter den Wert seiner Arbeitskraft, sondern nur wenn dieser Wert selbst sinkt.

↑ A solution just fell into our laps; where did it come from? The procedure here is very similar to the one in chapters Five and Six: after chapter Five seemed to show the impossibility of M–C–M', chapter Six showed that after etching away all the impossibilities the contours of what is the only possibility had become visible. The transition just made is very similar, and ↓ Marx remarks that this transition is a reversal of cause and effect. For a dialectician like Marx this means: this is the negation of a negation.

With the length of the working day as a given, the prolongation of the surplus labor must originate in the shortening of the necessary labor-time, instead of the latter arising from the former.

Bei gegebner Länge des Arbeitstags muß die Verlängerung der Mehrarbeit aus der Verkürzung der notwendigen Arbeitszeit entspringen, nicht umgekehrt die Verkürzung der notwendigen Arbeitszeit aus der Verlängerung der Mehrarbeit.

Fowkes Translation: "Given the length of the working-day, the prolongation of the surplus labor must of necessity originate in the curtailment of the necessary labor-time; the latter cannot arise from the former." The translator seems to have forgotten the context in which Marx makes this statement. There is nothing in the

German of which "of necessity" is the translation. Furthermore, since the verb in the first half of the sentence is "must," I am assuming the implied verb in the second half of the sentences is "must not" (instead of "cannot"), meaning: it is possible but our assumptions prohibit consideration of this case. I wrote "with the length of the

working day as a given" instead of "if the length of the working day is given," because I wanted to indicate that this is an assumption which has always been in the background, and which must therefore be added to the assumption of prices equal values, instead of taking its place.

↑ If the capitalist depresses the price of labor-power below its value in order to increase surplus-value, then the necessary labor decreases because the surplus labor increases. On the other hand, if the value of labor-power falls, then the surplus labor increases because the necessary labor decreases. This is a reversal of cause and effect, i.e., this effect is not something the capitalists are directly pushing for, it is an indirect effect.

Question 911 *If the length of the working day is fixed, then the division of the day into necessary and surplus labor can be made more favorable for the capitalist in two ways: either the necessary labor is shortened by extending the surplus labor, or the surplus labor is extended by shortening the necessary labor. Which of these two possibilities is Marx discussing here, and why is he not discussing the other possibility?* 2013fa, 2001fa, 1999SP, 1998WI, 1997ut, 1997sp, 1997WI, 1996ut, 1996sp, 1995ut.

↓ In terms of the numerical example from 317:2/o, the second option would look as follows:

In our example, the value of labor-power must go through a decline of one-tenth, in order to shorten the necessary labor-time by one-tenth, i.e. from 10 hours to 9, and therefore to lengthen the surplus labor from 2 hours to 3.

In unsrem Beispiel muß der Wert der Arbeitskraft wirklich um 1/10 sinken, damit die notwendige Arbeitszeit um 1/10 abnehme, von 10 auf 9 Stunden, und daher die Mehrarbeit sich von 2 auf 3 Stunden verlängere.

The "wirklich" represents a real process brought about by the cumulative effect of productivity

changes (instead of just the wishful thinking of the capitalist, or his ability to cut wages because

of superior market power). I tried to render this in the translation by saying: must go through a decline.

Question 912 *Did the legal fixation of the length of the working day discussed in chapter Ten prevent an increase of exploitation?* 2013fa, 1997WI, 1996ut, 1996sp, 1995ut, 1995WI.

↓ Now the second step in the way out out the above impasse: in order for this to be possible, an additional new point has to be brought in, namely, changes in productivity:

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319:1/o A fall of this kind in the value of labor-power implies, however, that the same means of subsistence formerly produced in 10 hours can now be produced in 9 hours. But this is impossible without an increase in the productive power of labor.

An increase in productivity is therefore the solution of the dilemma. Note that Marx writes here: “the same means of subsistence,” i.e., he makes the assumption that real wages remain constant.

For example, suppose a cobbler, with a given set of tools, makes one pair of boots in one working day of 12 hours. If he is to make two pairs in the same time, the productive power of his labor must be double; and this cannot happen without an alteration in his tools and/or work method. Hence the conditions of production of his labor, i.e. his mode of production, hence the labor process itself, must be revolutionized. By an increase in the productive power of labor, we mean an alteration in the labor process of such a kind as to shorten the labor-time socially required for the production of a commodity, therefore to endow a given quantity of labor with the power of producing a greater quantity of use-value.²

333:1/o Eine solche Senkung des Werts der Arbeitskraft um 1/10 bedingt aber ihrerseits, daß dieselbe Masse Lebensmittel, die früher in 10, jetzt in 9 Stunden produziert wird. Dies ist jedoch unmöglich ohne eine Erhöhung der Produktivkraft der Arbeit.

Mit gegebenen Mitteln kann ein Schuster z.B. ein Paar Stiefel in einem Arbeitstag von 12 Stunden machen. Soll er in der selben Zeit zwei Paar Stiefel machen, so muß sich die Produktivkraft seiner Arbeit verdoppeln, und sie kann sich nicht verdoppeln ohne eine Änderung in seinen Arbeitsmitteln oder seiner Arbeitsmethode oder beiden zugleich. Es muß daher eine Revolution in den Produktionsbedingungen seiner Arbeit eintreten, d.h. in seiner Produktionsweise und daher im Arbeitsprozeß selbst. Unter Erhöhung der Produktivkraft der Arbeit verstehen wir hier überhaupt eine Veränderung im Arbeitsprozeß, wodurch die zur Produktion einer Ware gesellschaftlich erheischte Arbeitszeit verkürzt wird, ein kleineres Quantum Arbeit also die Kraft erwirbt, ein größeres Quantum Gebrauchswert zu produzieren.²

“Productive power” is a better translation of “Produktivkraft” than the usual “productive force.”

² ‘When the crafts assume a more perfect form, this means nothing other than the discovery of new ways of making a product with fewer people, or (which is the same thing) in a shorter time, than previously’ [Gal03, pp. 158–9] ‘Economies in the cost of production can only be economies in the quantity of labor employed in production’ (Sismondi, *Études*, Vol. I, p. 22).

² „Wenn die Gewerbe sich vervollkommen, so bedeutet das nichts anderes als die Entdeckung neuer Wege, auf denen ein Produkt mit weniger Menschen oder (was das selbe ist) in kürzerer Zeit als vorher gefertigt werden kann.“ [Gal03, pp. 158–9] „Die Ersparnis an den Kosten der Produktion kann nichts anderes sein als Ersparnis an der zur Produktion angewandten Arbeitsmenge.“ (Sismondi, „Études etc.“, t. I, p. 22.)

Capitalism must therefore change its mode of production for this kind of exploitation to be possible.

For the production of surplus-value in the form considered until now, we have assumed that the mode of production was given and only the duration of the labor process was prolonged. But when surplus-

Während also bei der Produktion des Mehrwerts in der bisher betrachteten Form die Produktionsweise als gegeben unterstellt war, genügt es für die Produktion von Mehrwert durch Verwandlung notwendiger Ar-

value has to be produced by the conversion of necessary labor into surplus labor, it by no means suffices for capital to take over the labor process in its historically transmitted or given shape. The technical and social conditions of the labor process and consequently the mode of production itself must be revolutionized if the productivity of labor is to be increased, by this the value of labor-power to be lowered, and the portion of the working day necessary for the reproduction of that value to be shortened.

beit in Mehrarbeit keineswegs, daß das Kapital sich des Arbeitsprozesses in seiner historisch überlieferten oder vorhandenen Gestalt bemächtigt und nur seine Dauer verlängert. Es muß die technischen und gesellschaftlichen Bedingungen des Arbeitsprozesses, also die Produktionsweise selbst umwälzen, um die Produktivkraft der Arbeit zu erhöhen, durch die Erhöhung der Produktivkraft der Arbeit den Wert der Arbeitskraft zu senken und so den zur Reproduktion dieses Werts notwendigen Teil des Arbeitstags zu verkürzen.

If capitalism revolutionizes its own presuppositions, this clinches its character as a self-acting force: it no longer depends on conditions provided to it from the outside. One can also consider this as a transition from quantity into quality: capital, which so far was only interested in a quantitative expansion of value, achieves this not merely by a quantitative extension of the working day, but by the qualitative changes of the production process.

320:1 I call that surplus-value which is produced by the lengthening of the working day, absolute surplus-value. In contrast to this, I call that surplus-value which arises from the shortening of the necessary labor-time, and from the corresponding alteration in the respective lengths of the two components of the working day, relative surplus-value.

334:1 Durch Verlängerung des Arbeitstags produzierten Mehrwert nenne ich absoluten Mehrwert; den Mehrwert dagegen, der aus Verkürzung der notwendigen Arbeitszeit und entsprechender Veränderung im Größenverhältnis der beiden Bestandteile des Arbeitstags entspringt—relativen Mehrwert.

The introduction of this new kind of surplus-value is concluded by giving it a name, “relative” because it is an increase in the gap between capitalist and laborer. These are not so much two kinds of surplus-value as two mechanisms to gain surplus-value.

Exam Question 914 *What is relative surplus-value? Which mechanisms, that were so far taken as given, affect the magnitude of relative surplus-value?* *Answer, 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP, 1998WI, 1997ut, 1997sp, 1997WI, 1996ut, 1996sp, 1995ut, 1995WI.*

This ends the first third of this chapter, and the chapter title “Concept of Relative Surplus-Value” apparently refers only to this first third of the chapter.

12.2. [From Productivity to Relative Surplus-Value]

We have seen that under the given conditions (constant working day and all commodities are sold at their values), the only possibility for the capitalists to increase surplus-value is a rise in the productivity of the production of the workers’ means of consumption. Next Marx verifies whether such a rise, if it occurs, indeed has this effect. Marx conducts this investigation in form of a dialog: he introduces doubts why surplus-value may not rise noticeably and then answers these doubts.

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320:2/o In order to lower the value of labor-power, the rise in the productivity of labor must seize upon those branches of industry whose products determine the value of labor-power, and consequently either belong to the category of normal means of subsistence, or are capable of replacing them.

↑ We just read the first doubt: it looks as if only few branches of industry can affect the value of labor-power through increasing productivity. ↓ Reply:

But the value of a commodity is determined not only by the quantity of labor which gives it its final form, but also by the quantity of labor contained in the instruments by which it has been produced. For instance, the value of a pair of boots depends not only on the labor of the cobbler, but also on the value of the leather, wax, thread, etc. Hence a fall in the value of labor-power is also brought about by an increase in the productivity of labor, and by a corresponding cheapening of commodities, in those industries which supply the instruments of labor and the material for labor, i.e. the physical elements of constant capital which are required for producing the means of subsistence.

↑ This increases the scope drastically, ↓ but there are still some branches left which are not affected.

But an increase in the productivity of labor in those branches of industry which supply neither the necessary means of subsistence nor the means by which they are produced leaves the value of labor-power undisturbed.

334:2 Um den Wert der Arbeitskraft zu senken, muß die Steigerung der Produktivkraft Industriezweige ergreifen, deren Produkte den Wert der Arbeitskraft bestimmen, also entweder dem Umkreis der gewohnheitsmäßigen Lebensmittel angehören oder sie ersetzen können.

Der Wert einer Ware ist aber nicht nur bestimmt durch das Quantum der Arbeit, welche ihr die letzte Form gibt, sondern ebenso wohl durch die in ihren Produktionsmitteln enthaltne Arbeitsmasse. Z.B. der Wert eines Stiefels nicht nur durch die Schusterarbeit, sondern auch durch den Wert von Leder, Pech, Draht usw. Steigerung der Produktivkraft und entsprechende Verwohlfeilerung der Waren in den Industrien, welche die stofflichen Elemente des konstanten Kapitals, die Arbeitsmittel und das Arbeitsmaterial, zur Erzeugung der notwendigen Lebensmittel liefern, senken also ebenfalls den Wert der Arbeitskraft.

In Produktionszweigen dagegen, die weder notwendige Lebensmittel liefern noch Produktionsmittel zu ihrer Herstellung, läßt die erhöhte Produktivkraft den Wert der Arbeitskraft unberührt.

Question 916 *Does the existence of industries whose product does not enter the value of labor-power either directly or indirectly refute Marx's implied claim that productivity increases have the purpose to increase relative surplus-value?* 2004f.a.

↓ Marx's second doubt is: the cheapening of one single kind of use-value can only have a negligible impact on wages.

321:1 The cheapening of the commodity, of course, causes only a corresponding fall in the value of labor-power, a fall proportional to the extent to which that commodity enters into the reproduction of labor-power. Shirts, for instance, are a necessary means of subsistence, but only one out of many. Their cheapening merely reduces the expenses of the worker for shirts.

334:3/o Die verwohlfeilerte Ware senkt natürlich den Wert da Arbeitskraft nur pro tanto, d.h. nur im Verhältnis, worin sie in die Reproduktion der Arbeitskraft eingeht. Hemden z.B. sind ein notwendiges Lebensmittel, aber nur eins von vielen. Ihre Verwohlfeilerung vermindert bloß die Ausgabe des Arbeiters für Hemden.

This last sentence is missing in the Fowkes translation.

Again this doubt can be answered:

The total sum of the necessary means of subsistence, however, consists of various commodities, each the product of a distinct industry; and the value of each of those commodities enters as a component part into the value of labor-power. The latter value decreases with the decrease of the labor-time necessary for its reproduction. The total decrease of necessary labor-time is equal to the sum of all the different reductions in labor-time which have occurred in those various distinct branches of production.

Die Gesamtsumme der notwendigen Lebensmittel besteht jedoch nur aus verschiedenen Waren, lauter Produkten besonderer Industrien, und der Wert jeder solchen Ware bildet stets einen aliquoten Teil vom Wert der Arbeitskraft. Dieser Wert nimmt ab mit der zu seiner Reproduktion notwendigen Arbeitszeit, deren Gesamtverkürzung gleich der Summe ihrer Verkürzungen in allen jenen besondern Produktionszweigen ist.

The flow of the argument might have been a little smoother if Marx had reversed the order of these two objections as follows: First objection: the cheapening of a single article of consumption can only have a negligible effect. Answer: workers' consumption covers more than one article. This answer, then, leads to the next objection: even if one looks at all means of consumption together, only a small part of the economy is devoted to workers' means of consumption. This can again be refuted, but not entirely. Also those industries count which enter the workers' means of consumption indirectly, but there are indeed industries which enter workers' consumption neither directly nor indirectly.

Perhaps Marx brought his two objections in the "wrong" order because he wanted a smooth transition to the next issue: since this is an aggregate effect, negligible in the individual case, it cannot be the motivation of the individual capitalist. The rest of the paragraph discusses this important cleavage between surface and core.

We treat this general result here as if it were the immediate result and the immediate aim in each individual case.

Wir behandeln dies allgemeine Resultat hier so, als wäre es unmittelbares Resultat und unmittelbarer Zweck in jedem einzelnen Fall.

This sentence says three things:

- The reduction in the value of labor-power is a *general* result, i.e., it comes not from the cheapening of shirts, but from the cheapening of many means of subsistence.
- It is not always the *immediate result* of each individual case. This means, even if shirts become cheaper, this does not always mean immediately that the value of labor-power declines.
- And it is not always the *immediate aim* of each individual case, i.e., the shirt manufacturer may have had quite different aims than lowering the value of labor-power.

This last point is elaborated in the next sentence, and a laconic answer is given: what matters is not the capitalists' intentions, but what matters is what they actually do:

When an individual capitalist cheapens shirts, for instance, by increasing the productivity of labor, he by no means necessarily aims to reduce the value of labor-power

Wenn ein einzelner Kapitalist durch Steigerung der Produktivkraft der Arbeit z.B. Hemden verwohlfeilert, schwebt ihm keineswegs notwendig der Zweck vor, den

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and in this way shorten the necessary labor-time. But he contributes towards increasing the general rate of surplus-value only in so far as his actions ultimately contribute to the reduction in the value of labor-power.³

Capitalists invariably increase productivity, and they may have various motivations to do so: gain extra surplus-value if they are the first ones, keep up with the competitors if they are followers, get machines which controls their laborers better, or respond to labor struggles, etc. Whatever their motivation, the *effect* of their actions will only then be a durable increase in surplus-value if it leads to a cheapening of the workers' means of subsistence. Ramsay, in the footnote, stresses this:

³ 'Let us suppose ... the products ... of the manufacturer are doubled by improvement in machinery ... he will be able to clothe his workmen by means of a smaller proportion of the entire return ... and thus his profit will be raised. But in no other way will it (ultimately) be influenced'. [Ram36, pp. 168–9]

Wert der Arbeitskraft und daher die notwendige Arbeitszeit pro tanto zu senken, aber nur soweit er schließlich zu diesem Resultat beiträgt, trägt er bei zur Erhöhung der allgemeinen Rate des Mehrwerts.³

³ „Wenn der Fabrikant durch Verbesserung der Maschinerie seine Produkte verdoppelt ... gewinnt er (schließlich) bloß, sofern er dadurch befähigt wird, den Arbeiter wohlfeiler zu kleiden ... und so ein kleinerer Teil des Gesamtertrags auf den Arbeiter fällt.“ [Ram36, pp. 168–9]

Question 917 Which are the motives why a capitalist might want to introduce new technology? 2013fa, 1996sp, 1995ut, 1995WI.

At the present point, Marx does not elaborate how the actions which lead to a cheapening of the laborer's means of subsistence may be motivated. Instead, he gives a general methodological remark, which is one of the few comments about his methodology one can find in *Capital*.

The general and necessary tendencies of capital must be distinguished from their forms of appearance.

Die allgemeinen und notwendigen Tendenzen des Kapitals sind zu unterscheiden von ihren Erscheinungsformen.

Question 918 What does Marx mean by the statement: “The general and necessary tendencies of capital must be distinguished from their forms of appearance”? Give examples of “general and necessary tendencies of capital” and of “forms of appearance” of such tendencies. 2013fa, 2010fa, 2009fa, 2005fa, 2004fa, 1999SP, 1998WI, 1996ut.

Term Paper Topic 919 How do modern intellectual property rights fit together with Marx's theory of capitalism? 2013fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2002fa.

12.3. [Individual Motivation for Innovation]

The last remaining question is: if the capitalists' motivation for introduction of technical innovations in the production of the workers' means of consumption is not the relative surplus-value, what then is their motivation? To answer this, Marx has to go into the sphere of competition. He introduces this with a famous general passage about “competition.” By the laws of “competition” Marx means the laws governing the surface interaction of individual capitals. Any activity by which an individual capitalist tries to best take advantage of market forces is an act of “competition.” Superior competitive skills can increase profits for

individual capitalist firms, but Marx is not interested at this point in the differences between individual firms. The more important effect of competition, i.e., of the efforts of all market participants to beat out their competitors, is that these competitive pressures force everyone to act in such a way that the laws of “capital in general” are implemented.

321:2 This is not the place to investigate how the immanent laws of capitalist production manifest themselves in the external movement of the individual capitals, assert themselves as the necessities of competition, and therefore enter into the consciousness of the capitalist as his or her driving motives.

335:1 Die Art und Weise, wie die immanenten Gesetze der kapitalistischen Produktion in der äußern Bewegung der Kapitale erscheinen, sich als Zwangsgesetze der Konkurrenz geltend machen und daher als treibende Motive dem individuellen Kapitalisten zum Bewußtsein kommen, ist jetzt nicht zu betrachten, ...

In the German, “individual” is an attribute to “Kapitalisten”; in my

translation it is an attribute to “capitals.” I don’t think this

changes the meaning but it makes the formulation clearer.

This is an interesting formulation: the competitive motivation of the capitalist is not really his own motivation, but this is how he experiences his subjugation to the laws of capital.

Marx’s *Capital* is only one of several books about the political economy which Marx had planned to write. In one of his other books he wanted to discuss the “sphere of competition,” but he never had time to write this book. Without going into this specialized study, Marx can only make very general remarks here about competition:

But this much is clear from the beginning: a scientific analysis of competition is possible only after the inner nature of capital has been understood, just as the apparent motions of the heavenly bodies can be understood only by someone who is acquainted with their real motions—which are not perceptible to the senses.

... aber soviel erhellt von vornherein: Wissenschaftliche Analyse der Konkurrenz ist nur möglich, sobald die innere Natur des Kapitals begriffen ist, ganz wie die scheinbare Bewegung der Himmelskörper nur dem verständlich, der ihre wirkliche, aber sinnlich nicht wahrnehmbare Bewegung kennt.

This is an argument against empiricism. We first must grasp the inner nature of capital before we can understand the surface phenomena generated by the competition of the economic agents. This is why the book *Capital* itself contains only occasional references to the sphere of competition, only when it is necessary for a better understanding of the laws of “capital in general.” ↓ We are in such a situation right now.

Question 920 *Why can we gain a scientific understanding of “the sphere of competition” only after having grasped the inner nature of capital?* 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2005fa, 2004fa, 2003fa, 2002fa, 1997sp, 1997WI, 1996sp.

Nevertheless, for the understanding of the production of relative surplus-value, and only on the basis of the results already achieved, we may add the following.

Dennoch ist zum Verständnis der Produktion des relativen Mehrwerts und bloß auf Grundlage der bereits gewonnenen Resultate folgendes zu bemerken.

Marx makes here a digression into the sphere of competition because he has not yet explained how individual capitalists are motivated to create relative surplus-value.

321:3/oo If 1 hour’s labor is embodied in 12 cents, a value of \$1.44 will be produced in a working day of 12 hours. Suppose that

335:2/o Stellt sich eine Arbeitsstunde in einem Geldquantum von 6 d. oder 1/2 sh. dar, so wird in zwölfstündigem Arbeitstag

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with labor of the currently prevailing productive power, twelve articles are produced in these 12 hours. Let the value of the means of production used up in each article be 12 cents. Under these circumstances, each article costs 24 cents: 12 cents for the value of the means of production, and 12 cents for the value newly added in working with those means.

ein Wert von 6 sh. produziert. Gesetzt, mit der gegebenen Produktivkraft der Arbeit wurden 12 Stück Waren in diesen 12 Arbeitsstunden gefertigt. Der Wert der in jedem Stück vernutzten Produktionsmittel, Rohmaterial usw. sei 6 d. Unter diesen Umständen kostet die einzelne Ware 1 sh., nämlich 6 d. für den Wert der Produktionsmittel, 6 d. für den in ihrer Verarbeitung neu zugesetzten Wert.

↑ Warning: the use of the word “costs” is misleading here. Marx is not adding the wage costs (which are often called “labor costs”) but the value created by that labor. The above numbers describe the situation before the change in productivity. Now assume productivity changes:

Now let some one capitalist contrive to double the productivity of labor, and to produce twenty-four instead of twelve articles in the course of a working day of 12 hours. The value of the means of production remaining the same, the value of each article will fall to 18 cents, made up of 12 cents for the value of the means of production and 6 cents for the value newly added by the labor. Even though the productivity of labor has doubled, the day’s labor creates no more new value than before, namely, \$1.44. However it is now spread over twice as many articles. Each article now has embodied in it $\frac{1}{24}$ th of the new value instead of $\frac{1}{12}$ th, 6 cents instead of 12 cents; or, what amounts to the same thing, only half an hour of labor-time, instead of a whole hour, is now added to the means of production when they are transformed into articles.

Es gelinge nun einem Kapitalisten die Produktivkraft der Arbeit zu verdoppeln und daher 24 statt 12 Stück dieser Warenart in dem zwölfstündigen Arbeitstag zu produzieren. Bei unverändertem Wert der Produktionsmittel sinkt der Wert der einzelnen Ware jetzt auf 9 d., nämlich 6 d. für den Wert der Produktionsmittel, 3 d. für den durch die letzte Arbeit neu zugesetzten Wert. Trotz der verdoppelten Produktivkraft schafft der Arbeitstag nach wie vor nur einen Neuwert von 6 sh., welcher sich jedoch jetzt auf doppelt soviel Produkte verteilt. Auf jedes einzelne Produkt fällt daher nur noch $\frac{1}{24}$ statt $\frac{1}{12}$ dieses Gesamtwerts, 3 d. statt 6 d. oder, was dasselbe ist, den Produktionsmitteln wird bei ihrer Verwandlung in Produkt, jedes Stück berechnet, jetzt nur noch eine halbe statt wie früher eine ganze Arbeitsstunde zugesetzt.

Question 922 *Do the workers after introduction of new machinery produce more value per hour?* Answer, 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP, 1998WI, 1997ut, 1997sp, 1997WI, 1996ut, 1996sp, 1995WI.

↑ In this example there is a huge change in productivity, but the same amount of labor is performed as before, therefore the total new value produced in this production process does not increase. Since more pieces are produced, the value of every piece falls. This is a dilemma. The capitalist increases productivity because he wants to get more surplus-value, but all he managed to do is produce more products, more wealth. The *value* produced remains the same. ↓ Marx takes a closer look. By the assumption of this example, only one capitalist is producing more efficiently; all the others still use the old production method. In order to deal with this situation, Marx introduces the concept of the innovator’s “individual

value” of the commodity, which is a category from the “sphere of competition.” The value calculation which Marx just made will eventually be relevant for all capitalists, when *all* producers have introduced the new production method; but right now it is only correct for the innovator’s individual value:

The individual value of these articles is now below their social value; in other words, they have cost less labor-time than the great bulk of the same articles produced under the average social conditions. Each article costs, on an average, 24 cents, and represents 2 hours of social labor; but under the altered mode of production it costs only 18 cents, or contains only 1 1/2 hours’ labor.

Der individuelle Wert dieser Ware steht nun unter ihrem gesellschaftlichen Wert, d.h., sie kostet weniger Arbeitszeit als der große Haufen derselben Artikel, produziert unter den gesellschaftlichen Durchschnittsbedingungen. Das Stück kostet im Durchschnitt 1 sh. oder stellt 2 Stunden gesellschaftlicher Arbeit dar; mit der veränderten Produktionsweise kostet es nur 9 d. oder enthält nur 1 1/2 Arbeitsstunden.

↑ The numbers are the same as before. Constant capital 12 cents, and new value added fell from 12 cents to 6 cents. But now it is individual value, not social value, ↓ and that makes a big difference:

The effective value of a commodity, however, is not its individual but its social value; i.e., its value is not measured by the labor-time that the article actually costs the producer in this individual case, but by the labor-time socially required for its production.

Der wirkliche Wert einer Ware ist aber nicht ihr individueller, sondern ihr gesellschaftlicher Wert, d.h., er wird nicht durch die Arbeitszeit gemessen, die sie im einzelnen Fall dem Produzenten tatsächlich kostet, sondern durch die gesellschaftlich zu ihrer Produktion erheischte Arbeitszeit.

What are the implications of this gap between individual and social value for the price of the commodity? If the new technology was introduced by just one of many producers, who does not have an influence on the market, then the price remains unchanged. This makes it necessary for Marx to introduce another new concept, that of extra surplus-value:

If, therefore, the capitalist who applies the new method sells his commodity at its social value of 24 cents, he sells it for 6 cents above its individual value, and thus he realizes an extra surplus-value of 6 cents.

Verkauft also der Kapitalist, der die neue Methode anwendet, seine Ware zu ihrem gesellschaftlichen Wert von 1 sh., so verkauft er sie 3 d. über ihrem individuellen Wert und realisiert so einen Extramehrwert von 3 d.

Question 923 *Why is the social value, and not the individual value, the “effective” or “real” value?* [1997sp](#), [1997WI](#), [1996ut](#), [1996sp](#), [1995ut](#), [1995WI](#).

Can the capitalist therefore just keep his innovation secret, pretend that he is still using the same production methods as the others, and merrily rake in extra surplus-value? Well, there is one problem with this. He has now greater output and must see to it that this output is sold:

On the other hand, the working day of 12 hours is now represented, for him, by twenty-four articles instead of twelve. Hence, in order to sell the product of one working day, he needs double the demand than before, i.e. the market must become twice as extensive. Other things being equal, the

Andrerseits stellt sich aber der zwölfstündige Arbeitstag jetzt für ihn in 24 Stück Ware dar statt früher in 12. Um also das Produkt eines Arbeitstags zu verkaufen, bedarf er doppelten Absatzes oder eines zweifach größeren Markts. Unter sonst gleichbleibenden Umständen erobern seine Waren nur

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capitalist's commodities can only command a more extensive market if their prices are reduced. He will therefore sell them above their individual but below their social value, say at 20 cents each. By this means he still squeezes an extra surplus-value of 2 cents out of each.

Important: the innovator has to lower the price to get room in the market for his increased output. Despite this price cut, he still sells the products above their individual values and therefore still makes an extra surplus-value:

This increase of surplus-value for the capitalist takes place whether or not his commodities belong to the class of necessary means of subsistence, and therefore enter the determination of the general value of labor-power. Whether or not this latter condition is satisfied, therefore, the motive exists for every individual capitalist to cheapen his commodities by increasing the productivity of labor.

This answers the question why capitalists innovate. We see that *everyone* has the incentive to innovate in order to gain extra surplus-value, not only those capitalists whose products enter the value of labor-power. And everybody's extra surplus-value is only temporary, over time it will be competed away again. But the extra surplus-value of those who produce the workers' means of consumption, does not entirely disappear but is reborn as relative surplus-value for all capitalists.

This raises the question: what is the source of this extra surplus-value? Marx argues that extra surplus-value, just like relative surplus-value, comes from a shortening of the necessary labor. The goal of the innovating capitalist is to reduce their cost more than their sales price. They probably don't believe that the labor theory of value holds, but in the framework of this theory their goal is to reduce necessary labor more than the total labor input into the commodity, i.e., their goal is to increase relative surplus-value.

323:1/o Nevertheless, even in this case, the increased production of surplus-value arises from the shortening of the necessary labor-time and the corresponding prolongation of the surplus labor.^{3a}

Marx is about to give a somewhat long-winded argument to support this non-obvious point. But first he sticks footnote 3a in, in which Cazenove comes to the same conclusion as Marx, although he seems to employ a rather simple-minded argument. Marx's development in the main text will fill in the missing links, by which Cazenove's argument can be viewed as a short form of Marx's own argument.

^{3a} 'A man's profit does not depend upon his command of the produce of other men's labor, but upon his command of labor itself. If he can sell his goods at a higher price, while his workmen's wages remain unaltered, he is clearly benefited ... A smaller proportion of what he pro-

größern Marktraum durch Kontraktion ihrer Preise. Er wird sie daher über ihrem individuellen, aber unter ihrem gesellschaftlichen Wert verkaufen, sage zu 10 d. das Stück. So schlägt er an jedem einzelnen Stück immer noch einen Extramehrwert von 1 d. heraus.

Diese Steigerung des Mehrwerts findet für ihn statt, ob oder ob nicht seine Ware dem Umkreis der notwendigen Lebensmittel angehört und daher bestimmend in den allgemeinen Wert der Arbeitskraft eingeht. Vom letzten Umstand abgesehen, existiert also für jeden einzelnen Kapitalisten das Motiv, die Ware durch erhöhte Produktivkraft der Arbeit zu verwohlfeilern.

336:1/oo Indes entspringt selbst in diesem Fall die gesteigerte Produktion von Mehrwert aus der Verkürzung der notwendigen Arbeitszeit und entsprechender Verlängerung der Mehrarbeit.^{3a}

^{3a} „Der Profit eines Menschen hängt nicht ab von seinem Kommando über das Produkt der Arbeit anderer, sondern von seinem Kommando über Arbeit selbst. Wenn er seine Waren zu einem höhern Preis verkaufen kann, während die Löhne seiner Arbeiter unverändert bleiben, so zieht er

duces is sufficient to put that labor into motion, and a larger proportion consequently remains for himself.' ([J. Cazenove,] *Outlines of Political Economy*, London 1832. pp. 49, 50.)

augenscheinlich Gewinn daraus ... Ein kleinerer Teil dessen, was er produziert, reicht hin, jene Arbeit in Bewegung zu setzen, und demzufolge verbleibt ihm ein größerer Teil." ([J. Cazenove,] „*Outlines of Polit. Econ.*“, London 1832. p. 49, 50.)

With this footnote Marx is not trying to argue that the laborer working with the new machines creates more surplus-value because the capitalist can use a smaller portion of the product to pay his wages. The causality goes the opposite direction: since the labor working with the new machine is converted into potentiated labor, the capitalist is able to replace the value of labor-power with a smaller portion of the value of the daily product. (This last sentence is an almost literal quote from the machinery chapter, 409:1.)

The *support* of the claim that the laborer working with the new machine creates more value per hour than the average worker is not given in the footnote, but in the main text. For this argument, Marx needs a quantitative accounting of the social mass of surplus-value:

Let the necessary labor-time amount to 10 hours, i.e. the value of a day's labor-power to \$1.20, and the surplus labor-time to 2 hours, i.e. the daily surplus-value to 24 cents.

Die notwendige Arbeitszeit betrage 10 Stunden oder der Tageswert der Arbeitskraft 5 sh., die Mehrarbeit 2 Stunden, der täglich produzierte Mehrwert daher 1 sh.

This was before the change in productivity, or under the average conditions. Remember that 12 cents represent 1 hour of labor. But for the one capitalist with the superior technology things look different:

But our capitalist produces 24 articles now, which he sells at 20 cents each, making \$4.80 in all. Since the value of the means of production is \$2.88, $14\frac{2}{5}$ of these articles merely replace the constant capital advanced. The labor of the 12 hour working day is represented by the remaining $9\frac{3}{5}$ articles. Since the price of the labor-power is \$1.20, 6 articles represent the necessary labor-time, and $3\frac{3}{5}$ articles the surplus labor. The ratio of necessary labor to surplus labor, which under average social conditions was 5:1, has now fallen to 5:3.

Unser Kapitalist produziert aber jetzt 24 Stück, die er zu 10 d. per Stück oder zusammen zu 20 sh. verkauft. Da der Wert der Produktionsmittel gleich 12 Schilling, ersetzen $14\frac{2}{5}$ Stück Ware nur das vorge-schoßne konstante Kapital. Der zwölfstündige Arbeitstag stellt sich in den übrigbleibenden $9\frac{3}{5}$ Stück dar. Da der Preis der Arbeitskraft = 5 sh., stellt sich im Produkt von 6 Stück die notwendige Arbeitszeit dar und in $3\frac{3}{5}$ Stück die Mehrarbeit. Das Verhältnis der notwendigen Arbeit zur Mehrarbeit, welches unter den gesellschaftlichen Durchschnittsbedingungen 5:1 betrug, beträgt jetzt nur noch 5:3.

↑ This is Cazenove's calculation in footnote 3a, which measures everything in units of the final product. ↓ It can also be measured in money:

We may arrive at the same result in the following way. The value of the product of the working day of 12 hours is \$4.80. Of this sum, \$2.88 represent the value of the means of production, a value that merely re-appears in the finished product. There remain \$1.92, which are the expression in money of the value newly created during

Dasselbe Resultat erhält man so: Der Produktenwert des zwölfstündigen Arbeitstags ist 20 sh. Davon gehören 12 sh. dem nur wieder erscheinenden Wert der Produktionsmittel. Bleiben also 8 sh. als Geldausdruck des Werts, worin sich der Arbeitstag darstellt. Dieser Geldausdruck ist höher als der Geldausdruck der gesellschaftlichen

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the working day. This sum is greater than the sum in which average social labor of the same kind is expressed: 12 hours of the latter labor are expressed by only \$1.44. The exceptionally productive labor has the effect of potentiated labor; it creates in equal periods of time greater values than the labor of the same kind conforming with the social average.

Durchschnittsarbeit von derselben Sorte, wovon sich 12 Stunden nur in 6 sh. ausdrücken. Die Arbeit von ausnahmsweiser Produktivkraft wirkt als potenzierte Arbeit oder schafft in gleichen Zeiträumen höhere Werte als die gesellschaftliche Durchschnittsarbeit derselben Art.

Marx makes the same point also in the machinery chapter 409:1. In both places he uses the expression “potentiated labor,” i.e., labor made more potent, an expression which was first introduced in 54:1/o. The reason why different laborers produce different amounts of value in one hour is again the same: one labor-power is not exactly like any other. The potentiated labor of the laborer servicing the new machine produces a value of \$1.92 per day, i.e., 16 cents per hour, instead of the normal 12 cents.

Fowkes translates “*potenziert*” with “intensified,” which is blatantly wrong.

Once we know how much value has been produced, the implications for surplus-value follow immediately:

But our capitalist still continues to pay as before only \$1.20 as the daily value of labor-power. Hence, instead of 10 hours, the worker now needs to work for only 7 1/2 hours in order to reproduce this value. His surplus labor therefore grows by 2 1/2 hours, and the surplus-value he produces increases from 24 cents to 72 cents. Hence the capitalist who applies the improved method of production appropriates and devotes to surplus labor a greater portion of the working day than the other capitalists in the same business. He does individually what capital itself does as a whole when producing relative surplus-value.

Aber unser Kapitalist zahlt nach wie vor nur 5 sh. für den Tageswert der Arbeitskraft. Der Arbeiter bedarf daher, statt früher 10, jetzt nur noch 7 1/2 Stunden zur Reproduktion dieses Werts. Seine Mehrarbeit wächst daher um 2 1/2 Stunden, der von ihm produzierte Mehrwert von 1 auf 3 sh. Der Kapitalist, der die verbesserte Produktionsweise anwendet, eignet sich daher einen größeren Teil des Arbeitstags für die Mehrarbeit an als die übrigen Kapitalisten in demselben Geschäft. Er tut im einzelnen, was das Kapital bei der Produktion des relativen Mehrwerts im großen und ganzen tut.

There is a numerical discrepancy between the German and the English text, 7 1/2 versus 7 1/5 and 2 1/2 versus 2 4/5. But nowhere a remark why this is so. The German is right, and I took those numbers also into my translation.

Exam Question 925 *What is extra surplus-value? How is it related to relative surplus-value?* 2013fa, 2012fa, 2011fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1999SP, 1998WI, 1997WI, 1996sp, 1995ut.

The above is an argument that the competitive mechanism is connected with its ultimate result after all; it is the same result which was aimed for on an individual plane—and was lost again, as will be seen in the next sentence:

On the other hand, however, this extra surplus-value disappears as soon as the new

Andrerseits aber verschwindet jener Ex-tramehrwert, sobald die neue Produkti-

method of production is generalized, for then the difference between the individual value of the cheapened commodity and its social value vanishes. The same law of the determination of value by labor-time, which makes itself felt to the individual capitalist who applies the new method of production by compelling him to sell his goods under their social value, this same law, acting as a coercive law of competition, forces his competitors to adopt the new method.⁴

onsweise sich verallgemeinert und damit die Differenz zwischen dem individuellen Wert der wohlfeiler produzierten Waren und ihrem gesellschaftlichen Wert verschwindet. Dasselbe Gesetz der Wertbestimmung durch die Arbeitszeit, das dem Kapitalisten mit der neuen Methode in der Form fühlbar wird, daß er seine Ware unter ihrem gesellschaftlichen Wert verkaufen muß, treibt seine Mitbewerber als Zwangsgesetz der Konkurrenz zur Einführung der neuen Produktionsweise.⁴

It was already discussed above that the innovator himself had to lower the price to get more room in the market. This stirs up competition and forces the others to follow suit. The footnote leaves no doubt that this is what is meant:

⁴ 'If my neighbour by doing much with little labor, can sell cheap, I must contrive to sell as cheap as he. So that every art, trade, or engine, doing work with labor of fewer hands, and consequently cheaper, begets in others a kind of necessity and emulation, either of using the same art, trade, or engine, or of inventing something like it, that every man may be upon the square, that no man may be able to undersell his neighbour' (The Advantages of the East-India Trade to England, London, 1720, p. 67).

⁴ „Wenn mein Nachbar billig verkaufen kann, indem er mit wenig Arbeit viel herstellt, muß ich danach trachten, ebenso billig wie er zu verkaufen. So erzeugt jede Kunst, jedes Verfahren oder jede Maschine, die mit der Arbeit von weniger Händen und infolgedessen billiger arbeitet, bei andren eine Art Zwang und einen Wettbewerb, entweder dieselbe Kunst, dasselbe Verfahren oder dieselbe Maschine anzuwenden, oder etwas Ähnliches zu erfinden, damit alle auf gleichem Stand seien und keiner seinen Nachbar unterbieten könne.“ („The Advantages of the East-India Trade to England“. Lond. 1720, p. 67.)

Does this mean that this increase in productivity has *no* lasting effect on value relations?

The general rate of surplus-value is therefore ultimately affected by the whole process only when the increase in the productivity of labor has seized upon those branches of production and cheapened those commodities that contribute towards the necessary means of subsistence, and are therefore elements of the value of labor-power.

Die allgemeine Rate des Mehrwerts wird also durch den ganzen Prozeß schließlich nur berührt, wenn die Erhöhung der Produktivkraft der Arbeit Produktionszweige ergriffen, also Waren verwohlfeilert hat, die in den Kreis der notwendigen Lebensmittel eingehn, daher Elemente des Werts der Arbeitskraft bilden.

Here one sees how the individual capitalists are motivated to produce relative surplus-value. Their motivation usually focuses on extra surplus-value only. This does increase their profits, but this benefit will usually be only short-lived and the extra surplus-value will be competed away again. In those cases, however, in which competition lowers the price of wage goods, this extra surplus-value does not disappear but becomes relative surplus-value benefiting all capitalists.

Marx no longer spins on his quantitative example to substantiate this last claim. Here is a proposed extension of his calculations, which shows that also quantitatively the extra surplus-value is equal to the relative surplus value arising later when the value has equalized.

As in Marx's example, one working hour produces 12 cents. The working day is 12 hours,

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therefore one man-day of labor produces a value of \$1.44. The year has 300 working days, therefore 1 man year of labor produces a value of \$432.

The hourly wage is 10 cents, therefore the hourly surplus-value is 2 cents. The daily wage is \$1.20, therefore the daily surplus-value is 24 cents. The annual wage is \$360, therefore the annual surplus-value is \$72.

Look at the whole society, say a big city. It has 60,000 productive workers with their families. During the year they produce a value of $60,000 \times \$432 = \$25,920,000$. Their wages during the year are $60,000 \times \$360 = \$21,600,000$. And the surplus-value in one year is \$4,320,000.

Now let us go to shirt manufacturing. In the manufactures, every shirt requires one man hour of labor and 12 cents worth of materials etc. Assuming this is the socially necessary labor, the value of the shirt is 24 cents, which splits up in 12 cents constant capital + 10 cents variable capital + 2 cents surplus-value. Assume there are two shirt manufacturers in the city with 25 workers each. Then every manufacturer produces $300 \times 12 \times 25 = 90,000$ shirts per year. These 180,000 shirts together are sufficient for every worker to buy for himself and his family 3 shirts per year.

To produce his shirts, each capitalist needs a constant capital of $90,000 \times 12 \text{ cents} = \$10,800$, wages of \$9000, and gets a surplus-value of \$1,800 per year. The value of the 90,000 shirts is \$21,600.

Now assume the following situation. One of the two capitalists improves his production method so that he needs only 1/2 hours of work for every shirt. The second capitalist learns that and starts to produce something other than shirts in his factory. The first capitalist works with as many laborers as before, producing twice as many shirts.

Now let us look at three different scenarios. First assume that the socially necessary production method and the value of the shirts is still the old one. This capitalist now needs twice as much constant capital as before, namely \$21,600 worth per year, and has twice the sales as before, namely, \$43,200. That means, the new value produced by his 25 men is \$21,600, which is twice as much as before, or \$10,800 more than before. "The exceptionally productive labor has the effect of potentiated labor" (323:1/o). Since the wages for the 25 men are still the same as before, namely, \$9000, the surplus-value soared for this capitalist from \$1,800 to \$12,600 per year. This is an increase in the surplus-value by \$10,800. Since we assumed that the surplus-value of all other capitalists is still the same as before, the total value produced in our city rises from \$25,920,000 to \$25,930,800. The total sum of wages is still the same as before, namely, \$21,600,000, and the total sum of surplus-value is $\$25,920,000 + \$10,800 - \$21,600,000 = \$4,330,800$.

Second szenario: in order to avert the threat of re-entry by the other manufacturer, the unique manufacturer sells the shirts for 20 cents, this is 4 cents below the value before, but still 2 cents above the individual value of the shirt manufacturer. The total sales of the shirt manufacturer are now \$36,000, of which \$21,600 are constant capital and \$14,400 is newly created value. He still creates, with his 25 workers, \$3,600 more value per year than before the changes in productiveness, i.e., the labor of his workers still counts as multiplied labor. But now, also the value of the labor-power goes down: for the three shirts which every workers buys every year, he needs no longer 72 cents but only 60 cents, i.e., he saves 12 cents per year. Assuming the value of the labor-power is determined by the value of the necessary means of subsistence, it also goes down 12 cents per year, from \$360 to \$359.88. The total wage sum goes down by $60,000 \times 12 \text{ cents} = \$7,200$. The total surplus-value is now $\$25,920,000 + \$3,600 - (\$21,600,000 - \$7,200) = \$4,330,800$, which is the same as before.

Third szenario: the social value of the shirts falls to the level of the individual values of our

manufacturer: he has to sell his shirts for 18 cents, which is 12 cents for constant capital, and 6 cents for 1/2 hour of labor. The total value produced in the city is back down where it was before. The wages fall once more by another 6 cents per year, i.e., the total wage sum falls by another \$3,600 and is therefore $\$21,600,000 - \$7,200 - \$3,600 = \$21,600,000 - \$10,800$. The total surplus-value is $\$25,920,000 - (\$21,600,000 - \$10,800) = \$4,330,800$ which is, again, the same as before.

The total amount of surplus-value is therefore the same in all three scenarios, only the distribution of the surplus-value is different. In the first scenario, only the capitalist who applied the exceptional productivity enjoyed this surplus-value, and in the third it is shared equally by all capitalists. “He does individually what capital itself does as a whole when producing relative surplus-value.” (323:1/o).

Question 931 *Relative surplus-value requires the value of labor-power to fall. Does this mean that in today's world with sticky wages and union contracts, relative surplus-value is impossible?* 2012fa, 2010fa, 2009fa, 2008fa, 2005fa.

12.4. [Value and Productivity]

The last third of the chapter is an essay about the paradox that capitalists, who are only interested in the value-aspect of their products, nevertheless continually strive to decrease the exchange-values of their commodities. Capitalists often introduce more productive machinery in order to undercut their competitors, or to expand production to make more profits. Whatever the case, it is self-understood that the capitalists use all advantages of the improved machinery for themselves and leave the worker where he or she is. Thus the machinery increases the gap between capitalist and laborer, i.e., the relative surplus-value.

324:1/o The value of commodities stands in inverse ratio to the productivity of labor. So, too, does the value of labor-power, since it depends on the values of commodities. Relative surplus-value, however, is directly proportional to the productive power of labor. It rises and falls together with it.

338:1 Der Wert der Waren steht in umgekehrtem Verhältnis zur Produktivkraft der Arbeit. Ebenso, weil durch Warenwerte bestimmt, der Wert der Arbeitskraft. Dagegen steht der relative Mehrwert in direktem Verhältnis zur Produktivkraft der Arbeit. Er steigt mit steigender und fällt mit fallender Produktivkraft.

Now Marx makes an assumption which colors everything he is going to say: the value of money, in terms of labor-time, is fixed:

The value of money being assumed to be constant, an average social working day of 12 hours always produces the same new value, \$1.44, no matter how this sum may be apportioned between surplus-value and wages. But if, as a result of an increase in productivity, there is a fall in the value of the means of subsistence, and the daily value of labor-power is thereby reduced from \$1.20 to 72 cents, the surplus-value will increase from 24 cents to 72 cents. 10 hours were necessary for the reproduction of the value

Ein gesellschaftlicher Durchschnittsarbeitstag von 12 Stunden, Geldwert als gleichbleibend vorausgesetzt, produziert stets dasselbe Wertprodukt von 6 sh., wie diese Wertsomme sich immer verteile zwischen Äquivalent für den Wert der Arbeitskraft und Mehrwert. Fällt aber infolge gesteigerter Produktivkraft der Wert der täglichen Lebensmittel und daher der Tageswert der Arbeitskraft von 5 sh. auf 3 sh., so wächst der Mehrwert von 1 sh. auf 3 sh. Um den Wert der Arbeitskraft zu reproduzieren, waren 10

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of the labor-power; now only 6 are required. 4 hours have been set free, and can be annexed to the domain of surplus labor.

und sind jetzt nur noch 6 Arbeitsstunden nötig. Vier Arbeitsstunden sind frei geworden und können der Domäne der Mehrarbeit annexiert werden.

Interesting insight about competition which has practical implications for labor struggles: these 4 hours are up for grabs! Workers can fight for them too.

Capital therefore has an immanent drive, and a constant tendency, towards increasing the productivity of labor, in order to cheapen commodities and, by cheapening commodities, to cheapen the worker himself.⁵

Es ist daher der immanente Trieb und die beständige Tendenz des Kapitals, die Produktivkraft der Arbeit zu steigern, um die Ware und durch die Verwohlfeilung der Ware den Arbeiter selbst zu verwohlfeilern.⁵

There are two statements in this sentence. (1) cheapening of the commodities implies cheapening of the laborer, and (2) hence capital has the immanent tendency to raise the productivity of labor. Footnote 5 concentrates on statement (1) only. Statement (2) is an interesting issue from the theory of competition. The present chapter gives only some isolated remarks about it but cannot give a full and systematic development of the issue.

⁵ In whatever proportion the expenses of a laborer are diminished, in the same proportion will his wages be diminished, if the restraints on industry are at the same time taken off" [Ano53, p. 7] 'The interest of trade requires, that corn and all provisions should be as cheap as possible; for whatever makes them dear, must make labor dear also ... in all countries, where industry is not restrained, the price of provisions must affect the price of labor. This will always be diminished when the necessities of life grow cheaper' [Ano53, p. 3] 'Wages are decreased in the same proportion as the powers of production increase. Machinery, it is true, cheapens the necessities of life, but it also cheapens the laborer' [Ano34, p. 27]

⁵ "In welchem Verhältnis immer die Ausgaben eines Arbeiters verringert werden, in gleichem Verhältnis wird auch sein Lohn verringert, wenn die Einschränkungen der Industrie gleichzeitig aufgehoben werden. [Ano53, p. 7] „Das Interesse der Industrie erfordert, daß Korn und alle Lebensmittel so billig wie möglich sind; was immer sie verteuert, muß auch die Arbeit verteuern ... in allen Ländern, in denen die Industrie keinen Einschränkungen unterliegt, muß der Preis der Lebensmittel auf den Preis der Arbeit einwirken. Dieser wird stets herabgesetzt werden, wenn die notwendigen Lebensmittel billiger werden.“ [Ano53, p. 3] Die Löhne werden im selben Verhältnis gesenkt, in dem die Produktionskräfte anwachsen. Die Maschine verbilligt zwar die notwendigen Lebensmittel, aber sie verbilligt außerdem auch den Arbeiter.“ [Ano34, p. 27]

325:1–2 The absolute value of a commodity is, in itself, of no interest to the capitalist who produces it. All that interests him is the surplus-value present in it, which can be realized by sale. Realization of the surplus-value necessarily carries with it the replacement of the value advanced. Now, since relative surplus-value increases in direct proportion to the development of the productivity of labor, while the value of commodities stands in precisely the opposite relation to the growth of productivity; since the same process both cheapens commodities and augments the surplus-value

338:2/o Der absolute Wert der Ware ist dem Kapitalisten, der sie produziert, an und für sich gleichgültig. Ihn interessiert nur der in ihr steckende und im Verkauf realisierbare Mehrwert. Realisierung von Mehrwert schließt von selbst Ersatz des vorgeschossenen Werts ein. Da nun der relative Mehrwert in direktem Verhältnis zur Entwicklung der Produktivkraft der Arbeit wächst, während der Wert der Waren in umgekehrtem Verhältnis zur selben Entwicklung fällt, da also derselbe identische Prozeß die Waren verwohlfeilert und den in ihnen enthaltenen Mehrwert steigert, löst sich

contained in them, we have here the solution of the following riddle: Why does the capitalist, whose sole concern is to produce exchange-value, continually strive to bring down the exchange-value of commodities? One of the founders of political economy, Quesnay, used to torment his opponents with this question, and they could find no answer to it.

‘You acknowledge,’ he says, that the more one can reduce the expenses and costs of labor in the manufacture of industrial products, without injury to production, the more advantageous is that reduction, because it diminishes the price of the finished article. And yet you believe that the production of wealth, which arises from the labor of the craftsmen, consists in the augmentation of the exchange-value of their products.

Footnote 6 brings the French text:

⁶ „Ils conviennent que plus on peut, sans préjudice, épargner de frais ou de travaux dispendieux dans la fabrication des ouvrages des artisans, plus cette épargne est profitable par la diminution des prix de ces ouvrages. Cependant ils croient que la production de richesse qui résulte des travaux des artisans consiste dans l’augmentation de la valeur vénale de leurs ouvrages.” (Quesnay, *Dialogues sur le Commerce et sur les Travaux des Artisans*, pp. 188, 189.)

das Rätsel, daß der Kapitalist, dem es nur um die Produktion von Tauschwert zu tun ist, den Tauschwert der Waren beständig zu senken strebt, ein Widerspruch, womit einer der Gründer der politischen Ökonomie, Quesnay, seine Gegner quälte und worauf sie ihm die Antwort schuldig blieben.

„Ihr gebt zu“, sagt Quesnay, „daß, je mehr man, ohne Nachteil für die Produktion, Kosten oder kostspielige Arbeiten in der Fabrikation industrieller Produkte ersparen kann, desto vorteilhafter diese Ersparung, weil sie den Preis des Machwerks vermindert. Und trotzdem glaubt ihr, daß die Produktion des Reichtums, der aus den Arbeiten der Industriellen herkommt, in der Vermehrung des Tauschwerts ihres Machwerks besteht.“⁶

⁶ „Ils conviennent que plus on peut, sans préjudice, épargner de frais ou de travaux dispendieux dans la fabrication des ouvrages des artisans, plus cette épargne est profitable par la diminution des prix de ces ouvrages. Cependant ils croient que la production de richesse qui résulte des travaux des artisans consiste dans l’augmentation de la valeur vénale de leurs ouvrages.“ (Quesnay, „*Dialogues sur le Commerce et sur les Travaux des Artisans*“, p. 188, 189.)

Question 932 Does the continual striving by the capitalists to lower the value of their products contradict the basic tenet of the labor theory of value that they are only interested in value, not use-value? 2011fa, 2010fa, 2005fa, 2004fa, 2001fa, 2000fa, 1999SP, 1998WI, 1997WI, 1996ut, 1995WI.

325:3/o The shortening of the working day, therefore, is by no means what is aimed at in capitalist production, when labor is economized by increasing its productivity.⁷ It is only the shortening of the labor-time necessary for the production of a definite quantity of commodities that is aimed at. The fact that the worker, when the productivity of his labor has been increased, produces say ten times as many commodities as before, and thus spends one-tenth as much labor-time on each, by no means prevents him from continuing to work 12 hours as be-

339:2/o Ökonomie der Arbeit durch Entwicklung der Produktivkraft der Arbeit⁷ bezweckt in der kapitalistischen Produktion also durchaus nicht Verkürzung des Arbeits-tags. Sie bezweckt nur Verkürzung der für Produktion eines bestimmten Warenquantums notwendigen Arbeitszeit. Daß der Arbeiter bei gesteigerter Produktivkraft seiner Arbeit in einer Stunde z.B. 10mal mehr Ware als früher produziert, also für jedes Stück Ware 10mal weniger Arbeitszeit braucht, verhindert durchaus nicht, ihn nach wie vor 12 Stunden arbeiten und in den 12 Stunden

12. Concept of Relative Surplus-Value

fore, nor from producing in those 12 hours 1,200 articles instead of 120. Indeed, his working day may simultaneously be prolonged, so as to make him produce say 1,400 articles in 14 hours.

Sometimes, the capitalists even have the gall to say: since we have invested so much in expensive machinery, now everyone must show up on time.

Therefore in the treatises of economists of the stamp of MacCulloch, Ure, Senior and the like, we may read on one page that the worker owes a debt of gratitude to capital for developing his productivity, because the necessary labor-time is thereby shortened, and on the next page that he must prove his gratitude by working in future for 15 hours instead of 10. The objective of the development of the productivity of labor within the context of capitalist production is the shortening of that part of the working day in which the worker must work for himself, and the lengthening, thereby, of the other part of the day, in which he is free to work for nothing for the capitalist.

1200 statt früher 120 Stück produzieren zu lassen. Ja, sein Arbeitstag mag gleichzeitig verlängert werden, so daß er jetzt in 14 Stunden 1400 Stück produziert usw.

Man kann daher bei Ökonomen vom Schlag eines MacCulloch, Ure, Senior und tutti quanti auf einer Seite lesen, daß der Arbeiter dem Kapital für die Entwicklung der Produktivkräfte Dank schuldet, weil sie die notwendige Arbeitszeit verkürzt, und auf der nächsten Seite, daß er diesen Dank beweisen muß, indem er statt 10 künftig 15 Stunden arbeitet. Die Entwicklung der Produktivkraft der Arbeit, innerhalb der kapitalistischen Produktion, bezweckt, den Teil des Arbeitstags, den der Arbeiter für sich selbst arbeiten muß, zu verkürzen, um gerade dadurch den andren Teil des Arbeitstags, den er für den Kapitalisten umsonst arbeiten kann, zu verlängern.

Question 933 *Should we be glad there is capitalism because of the increased productivity it generates, even if we disagree with the motives or means of that increase?* 2013fa, 2012fa.

⁷ ‘These speculators, who are so economical of the labor of the workers they would have to pay’ (J. N. Bidaut, *Du monopole qui s’établit dans les arts industriels et le commerce*, Paris, 1828, p. 13). ‘The employer will be always on the stretch to economise time and labor’ (Dugald Stewart, *Lectures on Political Economy*, in *Works*, ed. by Sir W. Hamilton, Vol. 8, Edinburgh, 1855, p. 318). ‘Their’ (the capitalists’) ‘interest is that the productive powers of the laborers they employ should be the greatest possible. On promoting that power their attention is fixed and almost exclusively fixed’ (R. Jones, op. cit., Lecture III [p. 38]).

How far this result can also be attained without cheapening commodities will appear from the following chapters, where we examine the particular methods of producing relative surplus-value.

⁷ „Diese Spekulanten, die so sehr sparen an der Arbeit der Arbeiter, die sie bezahlen müßten.“ (J. N. Bidaut, *„Du Monopole qui s’établit dans les arts industriels et le commerce“*, Paris 1828, p. 13.) „Der Unternehmer wird immer alles daransetzen, um Zeit und Arbeit zu sparen.“ (Dugald Stewart, *„Works“*, ed. by Sir W. Hamilton, v. VIII, Edinburgh 1855, *„Lectures on Polit. Econ.“*, p. 318.) „Sie“ (die Kapitalisten) „sind daran interessiert, daß die Produktivkräfte der Arbeiter, die sie beschäftigen, so groß wie möglich seien. Diese Kraft zu steigern, darauf ist ihre Aufmerksamkeit, und zwar fast ausschließlich gerichtet.“ (R. Jones, l.c., Lecture III.)

Wieweit dies Resultat auch ohne Verwohlfleierung der Waren erreichbar, wird sich zeigen in den besondren Produktionsmethoden des relativen Mehrwerts, zu deren Betrachtung wir jetzt übergehn.

12.4. [Value and Productivity]

Question 934 *Marx says that an increase in productivity will increase surplus-value not only through the cheapening of the workers' means of subsistence, but through other avenues as well. Describe some of these other avenues.* [2010fa](#), [2007fa](#), [2005fa](#), [2003fa](#), [1999SP](#).

Term Paper Topic 935 *Essay about the General Connection between Exploitation and Surplus-Value.* [2011fa](#), [2010fa](#), [2009fa](#).

Term Paper Topic 936 *Essay about Chapter Eleven: Rate and Mass of Surplus Value* [2012fa](#), [2011fa](#), [2010fa](#), [2007SP](#).

Term Paper Topic 937 *Essay about Chapter Thirteen: Co-operation* [2012fa](#), [2010fa](#), [2008fa](#), [2007SP](#), [2005fa](#), [2003fa](#), [2002fa](#), [2001fa](#), [2000fa](#), [1999SP](#).

Term Paper Topic 938 *Essay about Chapter Fourteen: Division of Labor and Manufacture* [2012fa](#), [2010fa](#), [2008fa](#), [2007SP](#), [2005fa](#), [2003fa](#), [2002fa](#), [1999SP](#).

Term Paper Topic 939 *Essay about Chapter Fifteen: Machinery and Large-Scale Industry* [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2002fa](#), [1999SP](#), [1997ut](#), [1997sp](#), [1997WI](#).

Term Paper Topic 940 *Did Marx Overlook the Fossil Fuel Bonanza in his discussion of Machinery and Large-Scale Industry in chapter Fifteen?* [2013fa](#), [2012fa](#).

Term Paper Topic 941 *Essay about Chapter Sixteen: Absolute and Relative Surplus Value* [2013fa](#), [2012fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2007fa](#).

Term Paper Topic 942 *Essay about Chapter Seventeen: Changes in Wages and Surplus Value* [2012fa](#), [2009fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2004fa](#), [2002fa](#), [2001fa](#), [2000fa](#).

Term Paper Topic 943 *Essay about Chapter Eighteen: Different Formulae for Rates of Surplus Value* [2009fa](#).

13. Co-Operation

Chapters Thirteen, Fourteen, and Fifteen discuss the *specific capitalist mode of production*. Pre-capitalist modes of production did not put much emphasis on technical progress. In the Middle Ages, inventors were sometimes beheaded, because their inventions threatened the established social order. Capitalism, by contrast, is dynamic and innovative. Marx explains in this chapter how capitalism came to be so innovative.

Capital originally introduced co-operation for reasons that had nothing to do with technology. Each capitalist had to employ many workers in order to produce enough surplus value so that he can live from it and still accumulate part of it. (At that time still all capitalists were men.) The quantitative increase in the number of employees turned into a qualitative change, since these employees started to work together. This process will be discussed in this chapter.

13.1. [Changes in the Capitalist Production Process which Precede The Specific Capitalist Mode of Production]

Even without a change in the traditional technologies, i.e., even without co-operation, the quantitative extension of production is already the cause of some “modifications.” They will be discussed in what is called here section 13.1.

13.1.a. [Implications of the Employment of Many Laborers by the Same Capital]

322:1 As we have seen, capitalist production begins to actually establish itself only where each individual capital simultaneously employs a comparatively large number of workers, and where, as a result, the labor-process is carried on on an extensive scale, and yields relatively large quantities of products.

341:1 Die kapitalistische Produktion beginnt, wie wir sahen, in der Tat erst, wo dasselbe individuelle Kapital eine größere Anzahl Arbeiter gleichzeitig beschäftigt, der Arbeitsprozeß also seinen Umfang erweitert und Produkt auf größerer quantitativer Stufenleiter liefert.

“begins to in fact establish itself only where” leans on the French

[megaII/7]276:1 “ne commence en fait à s’établir que là où.”

↑ “As we have seen” apparently refers to . Capitalism is not possible without many workers working under the same command.

A large number of workers working together, at the same time, in one place (or,

Das Wirken einer größeren Arbeiteranzahl zur selben Zeit, in demselben Raum (oder,

13.1. [Changes in the Capitalist Production Process which Precede The Specific Capitalist Mode of Production]

if you like, in the same field of labor), in order to produce the same sort of commodity under the command of the same capitalist, constitutes, historically and conceptually, the point of departure of capitalist production.

↑ If one thinks of capitalist production, one thinks of one capitalist employing many workers to produce a large quantity of the same product. This simple image is, according to Marx, historically and conceptually the point of departure of capitalist production. This image does not necessarily require that the workers co-operate. All they have to do is act in the same “field of labor.” ↓ And indeed, initially the workers did not co-operate, they simply continued to use the production methods familiar to them as independent craftsmen.

With regard to the mode of production itself, manufactories can hardly be distinguished, in their earliest stages, from the handicraft trades of the guilds, except by the greater number of workers simultaneously employed by the same capital. The workshop of the master craftsman is only enlarged.

↑ “Manufactories” are establishments based on hand work and division of labor. The historical fact that at the beginning, technology did not change qualitatively but only quantitatively, is supporting evidence for Marx’s claim that the reason for this co-operation was the necessity to add enough workers together so that the sum of their surplus-values can sustain a capitalist. There is no qualitative change in production yet. ↓ And the nature of value does not seem to require such qualitative change, since value is additive.

At first, then, the difference is purely quantitative. We have shown that the surplus-value produced by a given capital is equal to the surplus-value produced by each worker multiplied by the number of workers simultaneously employed. The number of workers does not in itself affect the rate of surplus-value or the degree of exploitation of labor-power and, with regard to the production of commodity-values in general, every qualitative alteration in the labor process seems irrelevant. This follows from the nature of value.

↑ Marx uses here the word “seem,” because this conclusion suggests itself if one looks at the issue naively. The qualifier “in and for itself” goes in the same direction; it indicates that the inner nature of the value relations does not contain any dependence of the rate of surplus-value on the number of laborers. From the point of view of value, therefore, the changes to be discussed in this chapter do not seem necessary. Qualitative changes in the labor process seem permitted but not required.

↓ Next Marx introduces a numerical example which illustrates the additivity of value and will also be used for other points to be made below.

wenn man will, auf demselben Arbeitsfeld), zur Produktion derselben Warensorte, unter dem Kommando desselben Kapitalisten, bildet historisch und begrifflich den Ausgangspunkt der kapitalistischen Produktion.

Mit Bezug auf die Produktionsweise selbst unterscheidet sich z.B. die Manufaktur in ihren Anfängen kaum anders von der zünftigen Handwerksindustrie als durch die größere Zahl der gleichzeitig von demselben Kapital beschäftigten Arbeiter. Die Werkstatt des Zunftmeisters ist nur erweitert.

341:2 Der Unterschied ist also zunächst bloß quantitativ. Man sah, daß die Masse des Mehrwerts, welche ein gegebenes Kapital produziert, gleich dem Mehrwert, den der einzelne Arbeiter liefert, multipliziert mit der Anzahl der gleichzeitig beschäftigten Arbeiter. Diese Anzahl ändert an und für sich nichts an der Rate des Mehrwerts oder dem Exploitationsgrad der Arbeitskraft, und mit Bezug auf die Produktion von Warenwert überhaupt scheint jede qualitative Veränderung des Arbeitsprozesses gleichgültig. Es folgt dies aus der Natur des Werts.

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If a working day of 12 hours is objectified in \$1.44, 1,200 working days of 12 hours will be objectified in 1,200 times \$1.44. In one case $12 \times 1,200$ working-hours are incorporated in the products, and in the other case 12 working-hours. In the production of value many workers always only count as so many individual workers, and it therefore makes no difference in the value produced whether the 1,200 men work separately or united under the command of one capitalist.

Vergegenständlicht sich ein zwölfstündiger Arbeitstag in 6 sh., so 1200 solcher Arbeitstage in 6 sh. $\times$ 1200. In dem einen Fall haben sich 12×1200 , in dem andren 12 Arbeitsstunden den Produkten einverleibt. In der Wertproduktion zählen viele immer nur als viele einzelne. Für die Wertproduktion macht es also keinen Unterschied, ob 1200 Arbeiter vereinzelt produzieren oder vereint unter dem Kommando desselben Kapitals.

Question 944 *In 439:2, Marx stresses that with respect to value produced, the whole is not more than the sum of its parts. Can you think of other situations where Marx stresses that the whole is not more than the sum of its parts?*

Question 945 *What does Marx mean by: "In value production, many workers always only count as so many individual workers"?*

[Co-Operative Labor is Average Labor]

Although there is no big qualitative change, there are some modifications:

322:2/oo Nevertheless, within certain limits, a modification takes place.

341:2/oo Indes findet doch innerhalb gewisser Grenzen eine Modifikation statt.

Question 946 *What is the difference between a change and a modification?*

Marx will repeat at the end of this paragraph 322:2/oo that the "modifications" listed in this paragraph do not require the workers to actually co-operate; it is only necessary that all workers are working for the same capitalist.

First modification: co-operative labor is average labor. This is pretty obvious, but what makes it exciting is that average labor is exactly the labor that creates value. $\Downarrow$ Marx begins this point with a little digression about the nature of value.

The labor objectified in *value* is labor of average social quality, i.e., the expenditure of average labor-power.

In *Wert* vergegenständlichte Arbeit ist Arbeit von gesellschaftlicher Durchschnittsqualität, also die Äußerung einer durchschnittlichen Arbeitskraft.

$\Uparrow$ This is true whether a capitalist has few or many employees. $\Downarrow$ However the definition of the magnitude of value by an average leads to the question how this average *exists*, and for large capitals, the answer to this question is different than for small ones:

Any average magnitude, however, always only *exists* as the average of many separate magnitudes all of one kind, but differing as to quantity.

Eine Durchschnittsgröße *existiert* aber immer nur als Durchschnitt vieler verschiedener Größenindividuen derselben Art.

$\Uparrow$ Look at a die. The average of its throws is 3.5; this number does not exist as one of the faces of the die. The same is true for workers. There is no such thing as a Mr. Average.

In every industry, each individual laborer, be he Peter or Paul, differs more or less from the average laborer.

In jedem Industriezweig weicht der individuelle Arbeiter, Peter oder Paul, mehr oder minder vom Durchschnittsarbeiter ab.

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↓ But one can synthesize the elusive Mr. Average by hiring several workers at the same time:

These individual differences, or “errors” as they are called in mathematics, compensate one another, and vanish, whenever one adds a certain minimum number of workmen together. The celebrated sophist and sycophant, Edmund Burke, goes so far as to make the following assertion, based on his practical observations as a farmer; viz., that “in so small a platoon” as that of five farm laborers, all individual differences in the labor vanish, and that consequently any given five adult farm laborers taken together, will in the same time do as much work as any other five.⁸

⁸ “Unquestionably, there is a good deal of difference between the value of one man’s labor and that of another from strength, dexterity, and honest application. But I am quite sure, from my best observation, that any given five men will, in their total, afford a proportion of labor equal to any other five within the periods of life I have stated; that is, that among such five men there will be one possessing all the qualifications of a good workman, one bad, and the other three middling, and approximating to the first, and the last. So that in so small a platoon as that of even five, you will find the full complement of all that five men can earn.” (E. Burke, l.c., pp. 15, 16.) Compare Quételet on the average individual.

Burke’s claim may be exaggerated but in principle he is right:

But, however that may be, it is clear, that the aggregate working-day of a large number of workmen simultaneously employed, divided by the number of these workmen, gives one day of average social labor.

↓ To illustrate this, Marx resumes his earlier example:

For example, let the working-day of each individual be 12 hours. Then the aggregate working-day of 12 men simultaneously employed consists of 144 hours. The labor of each of the dozen men may deviate more or less from average social labor, each of them

Diese individuellen Abweichungen, welche mathematisch „Fehler“ heißen, kompensieren sich und verschwinden, sobald man eine größere Anzahl Arbeiter zusammennimmt. Der berühmte Sophist und Sykophant Edmund Burke will aus seinen praktischen Erfahrungen als Pächter sogar wissen, daß schon „für ein so geringes Peloton“ wie 5 Ackerknechte aller individuelle Unterschied der Arbeit verschwindet, also die ersten besten im Mannesalter befindlichen fünf englischen Ackerknechte zusammengenommen in derselben Zeit grad soviel Arbeit verrichten als beliebige andre fünf englische Ackerknechte.⁸

⁸ „Ohne Frage besteht ein beträchtlicher Unterschied zwischen dem Wert der Arbeit eines Mannes und dem der Arbeit eines andren durch unterschiedliche Kraft, Geschicklichkeit und redlichen Fleiß. Aber ich bin auf Grund meiner sorgfältigen Beobachtung völlig sicher, daß beliebige fünf Mann in ihrer Gesamtheit eine gleiche Menge Arbeit liefern wie fünf andre, die in den erwähnten Lebensperioden stehen. Das heißt, daß sich unter diesen fünf Mann einer befindet, der alle Eigenschaften eines guten Arbeiters hat, einer ein schlechter Arbeiter ist, während die andren drei mittelmäßig sind und sich dem ersten und letzten annähern. So wird man also schon in einer so kleinen Gruppe von selbst fünf Mann die Gesamtheit all dessen finden, was fünf Mann leisten können.“ (E. Burke, l.c. p. 15, 16.) Cf. Quételet über das Durchschnittsindividuum.

Wie dem auch sei, es ist klar, daß der Gesamtarbeitstag einer größeren Anzahl gleichzeitig beschäftigter Arbeiter, dividiert durch die Anzahl der Arbeiter, an und für sich ein Tag gesellschaftlicher Durchschnittsarbeit ist.

Der Arbeitstag des einzelnen sei z.B. zwölfstündig. So bildet der Arbeitstag von 12 gleichzeitig beschäftigten Arbeitern einen Gesamtarbeitstag von 144 Stunden, und obgleich die Arbeit eines jeden des Dutzend mehr oder minder von der gesellschaftli-

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requiring a different time for the same operation. Nevertheless, if the working-day of each individual worker is taken to be one-twelfth of the aggregate working-day of 144 hours, it possesses the qualities of an average social working-day.

chen Durchschnittsarbeit abweichen, der einzelne daher etwas mehr oder weniger Zeit zu derselben Verrichtung brauchen mag, besitzt der Arbeitstag jedes einzelnen als ein Zwölftel des Gesamtarbeitstags von 144 Stunden die gesellschaftliche Durchschnittsqualität.

↑ Marx's argument here can be broken up into two steps: (a) The individual differences of the 12 workers cancel each other out, therefore the total output is equal to the output of 144 average hours. (b) If each individual worker is considered one twelfth of the group of twelve then it follows that each individual work day is average as well.

Ad (a): By the laws of probability, the standard deviation of the average of 12 independent random variables with equal standard deviation s is $1/\sqrt{12} s$, i.e., it is less than $1/3$ of the standard deviation of each individual variable, but it is not zero. Marx, however, says that the sample average is equal to the population mean, i.e., its standard deviation is zero. He can only say this if this standard deviation has become so small that it is no longer practically relevant. The differences between different teams of twelve are probably no greater than the differences between the same individual today and tomorrow. The production process must therefore be organized in such a way that such differences do not matter. Another justification for Marx's assumption that the product of twelve workers is exactly equal to the social average may be that proximity (Marx does not yet assume co-operation itself here) causes the workers to compare themselves to each other and to adjust their labor output to some "normal" level. Co-operation itself goes beyond this; it imposes a rhythm on the workers, they compensate for each other and help each other out.

Ad (b): It would be justified to consider the labor each worker as $1/12$ th of the total labor in a situation where the joint output cannot be attributed to individual laborers and where the assumption can be made that each worker contributes equally to this joint output. But Marx does not claim here that the contribution of each worker is equal, on the contrary, he stresses that different workers may use different times for equal work processes. The conclusion is therefore counterfactual: Marx only says that each individual working-day has exactly social average quality *if* each individual working day is considered to be exactly one twelfth of the combined working-day. (The "*if*" is my own translation; the formulation in the German original does not make it quite as obvious that Marx means it counterfactually. Nevertheless I think this is the correct reading of Marx.)

↓ The next sentence says "however" in order to clinch the argument: although the above argument was counterfactual, since each individual laborer does not contribute exactly $1/12$ th of the overall output, this counterfactual outcome is reality for the capitalist in relation with his workers. The capitalist does not receive separate outputs from each worker individually but instead the aggregate output of their joint labor. And if time wages instead of piece wages are paid, the capitalist also does not pay each worker by his or her actual output, but all workers are paid the same hourly wage.

For the capitalist, however, who employs these 12 men, the working-day exists as the aggregate working-day of the whole dozen. Each individual man's day exists as an aliquot part of the aggregate working-day, no matter whether the 12 men assist one another in their work, or whether the

Für den Kapitalisten aber, der ein Dutzend beschäftigt, existiert der Arbeitstag als Gesamtarbeitstag des Dutzend. Der Arbeitstag jedes einzelnen existiert als aliquoter Teil des Gesamtarbeitstags, ganz unabhängig davon, ob die zwölf einander in die Hand arbeiten oder ob der ganze Zusammenhang ih-

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connexion between their operations consists merely in the fact, that the men are all working *for* the same capitalist.

rer Arbeiten nur darin besteht, daß sie für denselben Kapitalisten arbeiten.

But outside this relation, for instance if the twelve workers work for six different small masters, their individual differences do not cancel out:

But if the 12 men are employed in six pairs, by as many different small masters, it will be quite a matter of chance, whether each of these masters produces the same value, and consequently whether he realises the general rate of surplus-value. Individual deviations would take place.

Werden dagegen von den 12 Arbeitern je zwei von einem kleinen Meister beschäftigt, so wird es zufällig, ob jeder einzelne Meister dieselbe Wertmasse produziert und daher die allgemeine Rate des Mehrwerts realisiert. Es fänden individuelle Abweichungen statt.

If my interpretation is correct, then this last sentence should not be translated as “there would be individual differences.” Individual

differences also exist among the workers hired by the big capitalist; but for the big capitalist, these differences will not lead to

differences in output, while in the case of only two employees they do.

↑ Big capitalists face different conditions than small capitalists; Marx makes this point occasionally.

[Average Laborer Must Exceed a Minimum of Dexterity]

↓ Next Marx discusses a second implication of employing many people together, which is dialectically related to the first. The real definition of an “average worker” is transfactual; the average worker is not defined by his or her speed of output but an average worker is a worker who has no particular differences from any other worker. However capitalist co-operation imposes more stringent conditions on what *counts* as an average worker.

If one workman required considerably more time for the production of a commodity than is socially necessary, i.e., if the duration of his individual labor-time deviated considerably from the socially necessary or average labor-time, then his labor would not count as average labor, nor his labor-power as average labor-power. It would either be not saleable at all, or only at something below the average value of labor-power. A fixed minimum of efficiency in all labor is therefore assumed, and we shall see, later on, that capitalist production finds ways to measure this minimum.

Verbrauchte ein Arbeiter bedeutend mehr Zeit in der Produktion einer Ware, als gesellschaftlich erheischt ist, wiche die für ihn individuell notwendige Arbeitszeit bedeutend ab von der gesellschaftlich notwendigen oder der Durchschnittsarbeitszeit, so gälte seine Arbeit nicht als Durchschnittsarbeit, seine Arbeitskraft nicht als durchschnittliche Arbeitskraft. Sie verkaufte sich gar nicht oder nur unter dem Durchschnittswert der Arbeitskraft. Ein bestimmtes Minimum der Arbeitsfertigkeit ist also vorausgesetzt, und wir werden später sehn, daß die kapitalistische Produktion Mittel findet, dies Minimum zu messen.

One might say that, in contrast to Marx’s transfactual definition, capitalism imposes an *empiricist* conception of the average worker. Why does capitalism do this? Because the social average has now become a tangible quantity, individuals can and therefore will be compared against the group average.

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Question 949 *Did Marx overlook a possible source of profits when he calls also those workers average workers whose performance is below average? Why can't the capitalist introduce a strict merit payment system in which each worker is paid by his or her performance, or why can't the capitalist fire all those below average and in this way try to build up a superior workforce?*

The elimination of the workers below the allowable minimum decreases the variability of the workforce, but it does not make the workforce completely homogeneous. The earlier-mentioned difference between big and small capitalists therefore still exists.

Nevertheless, this minimum deviates from the average, although on the other hand the capitalist has to pay the average value of labor-power.

Nichtsdestoweniger weicht das Minimum vom Durchschnitt ab, obgleich auf der anderen Seite der Durchschnittswert der Arbeitskraft gezahlt werden muß.

Question 950 *Why does every worker get average pay, even if he or she does not match average performance?*

For the small masters in 322:2/oo, this has the following implications:

Of the six small masters, one would therefore squeeze out more than the average rate of surplus-value, another less. The inequalities would be compensated for the society at large, but not for the individual masters.

Von den sechs Kleinmeistern würde der eine daher mehr, der andre weniger als die allgemeine Rate des Mehrwerts herauschlagen. Die Ungleichheiten würden sich für die Gesellschaft kompensieren, aber nicht für den einzelnen Meister.

↓ The concluding sentence establishes a link between capitalism and commodity production in general:

Thus the law of valorization is only fully actualized for the individual producer, if he produces as a capitalist and employs a number of workmen together, whose labor, by its collective nature, is from the outset stamped as average social labor.⁹

Das Gesetz der Verwertung überhaupt realisiert sich also für den einzelnen Produzenten erst vollständig, sobald er als Kapitalist produziert, viele Arbeiter gleichzeitig anwendet, also von vornherein gesellschaftliche Durchschnittsarbeit in Bewegung setzt.⁹

The footnote brings a dissenting result from the literature, together with its refutation.

⁹ Professor Roscher claims to have discovered that one needlewoman employed by Mrs. Roscher during two days, does more work than two needlewomen employed together during one day. The learned professor should not study the capitalist process of production in the nursery, nor under circumstances where the principal personage, the capitalist, is wanting.

⁹ Herr Professor Roscher will entdeckt haben, daß eine Nähmamsell, die während zwei Tagen von der Frau Professorin beschäftigt wird, mehr Arbeit liefert, als zwei Nähmamsellen, welche die Frau Professorin am selben Tage beschäftigt. Der Herr Professor stelle seine Beobachtungen über den kapitalistischen Produktionsprozeß nicht in der Kinderstube an und nicht unter Umständen, worin die Hauptperson fehlt, der Kapitalist.

Question 951 *How does co-operation lend to individual labor the character of average social labor? What does that mean for the consciousness of the workers?*

13.1.b. [Effects of Many Workers Working on the Same Premises]

Two interlinked points were made so far: the employment of many workers by the same capitalist has the effect that the actual labor-time performed by these workers is equal to

13.1. [Changes in the Capitalist Production Process which Precede The Specific Capitalist Mode of Production]

the average labor-time, and that those workers performing too far below average are either paid a lower wage or altogether excluded from employment. Both points did not require that the workers work on the same place at the same time; they would also have been valid for workers working in different workshops or at home for the same capitalist.

⇓ If the workers work at the same place and time, additional modifications occur. Even if they do not work together but just work side by side at the same place and time without a change in the mode of their labor, this results in a “revolution” (qualitative change) of the objective conditions of the labor process, namely, an economizing of certain parts of the constant capital.

Even without an alteration in the system of working, the simultaneous employment of a large number of laborers effects a revolution in the material conditions of the labor-process. The buildings in which they work, the store-houses for the raw material, the implements and utensils used simultaneously or in turns by the workmen; in short, a portion of the means of production, are now consumed in common.

343:1/o Auch bei gleichbleibender Arbeitsweise bewirkt die gleichzeitige Anwendung einer größeren Arbeiteranzahl eine Revolution in den gegenständlichen Bedingungen des Arbeitsprozesses. Baulichkeiten, worin viele arbeiten, Lager für Rohmaterial usw., Gefäße, Instrumente, Apparate usw., die vielen gleichzeitig oder abwechselnd dienen, kurz, ein Teil der Produktionsmittel wird jetzt gemeinsam im Arbeitsprozeß konsumiert.

⇓ This joint consumption of the means of production leads to a less than proportional increase in their costs:

On the one hand, the exchange-value of these means of production is not increased; for the exchange-value of a commodity is not raised by its use-value being consumed more thoroughly and to greater advantage. On the other hand, they are used in common, and therefore on a larger scale than before. A room where twenty weavers work at twenty looms must be larger than the room of a single weaver with two assistants. But it costs less labor to build one workshop for twenty persons than to build ten to accommodate two weavers each; thus the value of the means of production that are concentrated for use in common on a large scale does not increase in direct proportion to the expansion and to the increased useful effect of those means.

Einerseits wird der Tauschwert von Waren, also auch von Produktionsmitteln, durchaus nicht erhöht durch irgendwelche erhöhte Ausbeutung ihres Gebrauchswerts. Andererseits wächst der Maßstab der gemeinsam gebrauchten Produktionsmittel. Ein Zimmer, worin 20 Weber mit ihren 20 Webstühlen arbeiten, muß weiter gestreckt sein als das Zimmer eines unabhängigen Webers mit zwei Gesellen. Aber die Produktion einer Werkstatt für 20 Personen kostet weniger Arbeit als die von 10 Werkstätten für je zwei Personen, und so wächst überhaupt der Wert massenweise konzentrierter und gemeinsamer Produktionsmittel nicht verhältnismäßig mit ihrem Umfang und ihrem Nutzeffekt.

⇓ Each product is therefore produced at a lower cost:

When consumed in common, they give up a smaller part of their value to each single product; partly because the total value they part with is spread over a greater quantity of products, and partly because their value, though absolutely greater, is, having regard

Gemeinsam vernutzte Produktionsmittel geben geringeren Wertbestandteil an das einzelne Produkt ab, teils weil der Gesamtwert, den sie abgeben, sich gleichzeitig auf eine größere Produktenmasse verteilt, teils weil sie, im Vergleich zu vereinzelter Pro-

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to their sphere of action in the process, relatively less than the value of isolated means of production. Owing to this, the value of a part of the constant capital falls, and in proportion to the magnitude of the fall, the total value of the commodity also falls. The effect is the same as if the means of production had cost less.

duktionsmitteln, zwar mit absolut größerem, aber, ihren Wirkungskreis betrachtet, mit relativ kleinrem Wert in den Produktionsprozeß eintreten. Damit sinkt ein Wertbestandteil des konstanten Kapitals, also proportionell zu seiner Größe auch der Gesamtwert der Ware. Die Wirkung ist dieselbe, als ob die Produktionsmittel der Ware wohlfeiler produziert würden.

↓ In other words, the means of production are socialized before labor itself is:

The economy in their application is entirely owing to their being consumed in common by a large number of workmen. Moreover, this character of being necessary conditions of social labor, a character that distinguishes them from the dispersed and relatively more costly means of production of isolated, independent laborers, or small masters, is acquired even when the numerous workmen assembled together do not assist one another, but merely work side by side. A portion of the instruments of labor acquires this social character before the labor-process itself does so.

Diese Ökonomie in der Anwendung der Produktionsmittel entspringt nur aus ihrem gemeinsamen Konsum im Arbeitsprozeß vieler. Und sie erhalten diesen Charakter als Bedingungen gesellschaftlicher Arbeit oder gesellschaftliche Bedingungen der Arbeit im Unterschied von den zersplitterten und relativ kostspieligen Produktionsmitteln vereinzelter selbständiger Arbeiter oder Kleinmeister, selbst wenn die vielen nur räumlich zusammen, nicht miteinander arbeiten. Ein Teil der Arbeitsmittel erwirbt diesen gesellschaftlichen Charakter, bevor ihn der Arbeitsprozeß selbst erwirbt.

Exam Question 952 *How does “a portion of the instruments of labor acquire a social character before the labor-process itself does”?*

↓ This is beneficial for capital on two counts.

Economy in the use of the means of production has to be considered under two aspects. First, as cheapening commodities, and thereby bringing about a fall in the value of labor-power. Secondly, as altering the ratio of the surplus-value to the total capital advanced, i.e., to the sum of the values of the constant and variable capital.

344:1 Die Ökonomie der Produktionsmittel ist überhaupt von doppeltem Gesichtspunkt zu betrachten. Das eine Mal, soweit sie Waren wohlfeilert und dadurch den Wert der Arbeitskraft senkt. Das andre Mal, soweit sie das Verhältnis des Mehrwerts zum vorgeschossenen Gesamtkapital, d.h. zur Wertsumme seiner konstanten und variablen Bestandteile, verändert.

↓ Only one of these benefits can be discussed here, the discussion of the other has to wait until volume Three:

The latter aspect will not be considered until we come to the third book, to which, with the object of treating them in their proper connexion, we also relegate many other points that relate to the present question.

Der letzte Punkt wird erst im ersten Abschnitt des Dritten Buchs dieses Werks erörtert, wohin wir des Zusammenhangs wegen auch manches schon hierher Gehörige verweisen.

Question 953 *What are the twofold benefits of the economy of constant capital, and why can one of these two benefits only be discussed in Capital III?*

↓ The subject-matter must be split up because two different real generative mechanisms are at work. This difference is not only theoretical but it is part of the worker's everyday experience:

The march of our analysis compels this splitting up of the subject-matter, a splitting up that is quite in keeping with the spirit of capitalist production. For since, in this mode of production, the workman finds the instruments of labor existing independently of him as another man's property, economy in their use appears as a distinct operation, one that does not concern him, and which, therefore, has no connexion with the methods by which his own personal productiveness is increased.

Der Gang der Analyse gebietet diese Zerreißung des Gegenstands, die zugleich dem Geist der kapitalistischen Produktion entspricht. Da hier nämlich die Arbeitsbedingungen dem Arbeiter selbständig gegenüber treten, erscheint auch ihre Ökonomie als eine besondere Operation, die ihn nichts angeht und daher getrennt ist von den Methoden, welche seine persönliche Produktivität erhöhen.

Moore-Abeling had here: appears, with regards to him. This is wrong: it does not just appear this way with regards to him, but

the social form of appearance of the economy of constant capital is such that it does not concern the worker, although this economy

itself is the effect of the workers' combined labor.

Question 954 *The economy in the means of production due to increased scale of production benefits the capitalist in two different ways. What are they?*

13.2. [Simple Co-Operation]

From now on Marx talks about co-operation proper, which is qualitatively, not only quantitatively different from the individual labors. He begins with the definition of co-operation:

When numerous laborers work next to and with each other in accordance with a plan, whether in one and the same process, or in different but connected processes, they are said to co-operate, or to work in co-operation.¹⁰

¹⁰ "Confluence of forces." (Destutt de Tracy, l.c., p. 80.)

Co-operative labor is not just a quantitative change but the creation of something new, Marx calls it a new "social force."

Just as the offensive power of a squadron of cavalry, or the defensive power of a regiment of infantry is essentially different from the sum of the offensive or defensive powers of the individual cavalry or infantry soldiers taken separately, so the sum total of the mechanical forces exerted by isolated workmen differs from the social force that is developed, when many hands take part simultaneously in one and the same undivided opera-

344:2 Die Form der Arbeit vieler, die in demselben Produktionsprozeß oder in verschiedenen, aber zusammenhängenden Produktionsprozessen planmäßig neben- und miteinander arbeiten, heißt Kooperation.¹⁰

¹⁰ „Concours de forces.“ (Destutt de Tracy, l.c. p. 80.)

345:1 Wie die Angriffskraft einer Kavallerieschwadron oder die Widerstandskraft eines Infanterieregiments wesentlich verschieden ist von der Summe der von jedem Kavalleristen und Infanteristen vereinzelt entwickelten Angriffs- und Widerstandskräfte, so die mechanische Kraftsumme vereinzelter Arbeiter von der gesellschaftlichen Kraftpotenz, die sich entwickelt, wenn viele Hände gleichzeitig in derselben ungeteil-

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tion, such as raising a heavy weight, turning a winch, or removing an obstacle.¹¹

ten Operation zusammenwirken, z.B. wenn es gilt, eine Last zu heben, eine Kurbel zu drehn oder einen Widerstand aus dem Weg zu räumen.¹¹

↑ The formulation “when many hands take part simultaneously in one and the same *undivided* operation” (my emphasis) makes it clear that Marx is talking here about *simple* co-operation. This is the simplest form of co-operation, in which people who do similar things work together. It must be distinguished from division of labor, which is a specific form of co-operation in which each of the workers co-operating specializes on a *different* task. Carrying a piano or participating in a discussion is a form of co-operation in which labor is not “divided.”

On the one hand Marx discusses this simple co-operation here, on the other he discusses those elements which all co-operative production processes have in common. ↓ Also the Wakefield quote in footnote 11 refers specifically to simple co-operation.

¹¹ There are numerous operations of so simple a kind as not to admit a division into parts, which cannot be performed without the co-operation of many pairs of hands. I would instance the lifting of a large tree on to a wain . . . , everything, in short, which cannot be done unless a great many pairs of hands help each other in the same undivided employment and at the same time.” (E. G. Wakefield: “A View of the Art of Colonization.” London, 1849, p. 168.)

¹¹ „Es gibt zahlreiche Verrichtungen von so einfacher Art, daß sie keine Zerlegung in Teile zulassen, die jedoch nur durch das Zusammenwirken vieler Paare von Händen ausgeführt werden können. So das Heben eines großen Baumstamms auf einen Wagen . . . kurz, alles, was nicht getan werden kann, ohne daß sich eine große Zahl von Händepaaren gegenseitig und gleichzeitig bei derselben ungeteilten Beschäftigung helfen.“ (E. G. Wakefield, „A View of the Art of Colonization“, London 1849, p. 168.)

Co-operation changes the production process qualitatively:

In such cases the effect of the combined labor could either not be produced at all by isolated individual labor, or it could only be produced by a great expenditure of time, or on a very dwarfed scale. Not only have we here an increase in the productive power of the individual, by means of co-operation, but the creation of a new power, namely, the collective power of masses.^{11a}

Die Wirkung der kombinierten Arbeit könnte hier von der vereinzelter gar nicht oder nur in viel längeren Zeiträumen oder nur auf einem Zwergmaßstab hervorgebracht werden. Es handelt sich hier nicht nur um Erhöhung der individuellen Produktivkraft durch die Kooperation, sondern um die Schöpfung einer Produktivkraft, die an und für sich Massenkraft sein muß.^{11a}

^{11a} “As one man cannot, and ten men must strain to lift a ton of weight, yet 100 men can do it only by the strength of a finger of each of them.” (John Bellers: “Proposals for Raising a Colledge of Industry.” London, 1696, p. 21.)

^{11a} „Während ein Mann nicht fähig ist, eine Tonnenlast zu heben, und 10 Mann sich dabei anstrengen müssen, können es einhundert Mann aber mit der Kraft nur je eines ihrer Finger tun.“ (John Bellers, „Proposals for raising a colledge of industry“, London 1696, p. 21.)

Next, Marx brings a long list of the effects of co-operation. The culmination of this list will be that co-operation is a new social force. (In the second half of the chapter, Marx will say that in capitalism, this new social force is appropriated by the capitalist without reimbursing the workers.) In critical realist terms, the result which Marx is going to develop right now is that co-operation is *real*, i.e., it has causal effects. The things listed here as the effects of co-operation are the things co-operation does.

13.2.a. [Stimulation of Animal Spirits]

The first effect of co-operation is an effect not on the product or on the labor process but on the laborer. Co-operation not only generates a new collective productive power; it also enhances the individual productive powers by stimulating the “animal spirits” of the individual workers

Apart from the new power that arises from the fusion of many forces into one single force, mere social contact begets in most industries an emulation and stimulation of the animal spirits that heighten the efficiency of each individual workman. Hence it is that a dozen persons working together will, in their collective working-day of 144 hours, produce far more than twelve isolated men each working 12 hours, or than one man who works twelve days in succession.¹² The reason of this is that man is, if not as Aristotle contends, a political,¹³ at all events a social animal.

345:2/o Abgesehn von der neuen Kraftpotenz, die aus der Verschmelzung vieler Kräfte in eine Gesamtkraft entspringt, erzeugt bei den meisten produktiven Arbeiten der bloße gesellschaftliche Kontakt einen Wetteifer und eine eigne Erregung der Lebensgeister (animal spirits), welche die individuelle Leistungsfähigkeit der einzelnen erhöhen, so daß ein Dutzend Personen zusammen in einem gleichzeitigen Arbeitstag von 144 Stunden ein viel größeres Gesamtprodukt liefern als zwölf vereinzelte Arbeiter, von denen jeder 12 Stunden, oder als ein Arbeiter, der 12 Tage nacheinander arbeitet.¹² Dies rührt daher, daß der Mensch von Natur, wenn nicht, wie Aristoteles meint, ein politisches¹³, jedenfalls ein gesellschaftliches Tier ist.

The German word “*Wetteifer*” means the eagerness to keep up with the others and not to be the slow person on the team, rather

than the desire to beat each other out. Moore/Aveling found the apt translation “emulation” (which I also saw in some of the footnotes),

while Fowkes uses rivalry, which gives the wrong connotations.

¹² “There is also” (when the same number of men are employed by one farmer on 300 acres, instead of by ten farmers with 30 acres a piece) “an advantage in the proportion of servants, which will not so easily be understood but by practical men; for it is natural to say, as 1 is to 4, so are 3 to 12; but this will not hold good in practice; for in harvest time and many other operations which require that kind of despatch by the throwing many hands together, the work is better and more expeditiously done: f.i. in harvest, 2 drivers, 2 loaders, 2 pitchers, 2 rakers, and the rest at the rick, or in the barn, will despatch double the work that the same number of hands would do if divided into different gangs on different farms.” (“An Inquiry into the Connexion between the Present Price of Provisions and the Size of Farms.” By a Farmer. London, 1773, pp. 7, 8.)

¹² „Man hat auch“ (wenn dieselbe Arbeiterzahl von einem Pächter auf 300, statt von 10 Pächtern auf je 30 acres angewandt wird) „in der relativen Zahl der Knechte einen Vorteil, der nicht so leicht zu erkennen ist, außer von Männern der Praxis. Man sagt natürlich, daß sich 1:4 wie 3:12 verhält; aber dies bewährt sich nicht in der Praxis. Denn in der Erntezeit und bei vielen andren Verrichtungen, die ähnliche Eile erfordern, wird durch Zusammenfassen vieler Arbeitskräfte die Arbeit besser und schneller geschafft. Z.B. bewältigen bei der Ernte 2 Fuhrleute, 2 Auflader, 2 Zureicher, 2 Recher, dazu der Rest beim Schober oder in der Scheune zusammen doppelt soviel Arbeit wie die gleiche Anzahl, wenn sie in verschiedene Gruppen und auf verschiedene Pachten aufgeteilt wäre.“ ([J. Arbuthnot,] „An Enquiry into the Connection between the present price of provisions and the size of farms.“ By a Farmer, London 1773, p. 7, 8.)

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¹³ Strictly, Aristotle's definition is that man is by nature a town-citizen. This is quite as characteristic of ancient classical society as Franklin's definition of man, as a tool-making animal, is characteristic of Yankeedom.

¹³ Aristoteles' Definition ist eigentlich die, daß der Mensch von Natur Stadtbürger. Sie ist für das klassische Altertum ebenso charakteristisch als Franklins Definition, daß der Mensch von Natur Instrumentenmacher, für das Yankeetum.

13.2.b. [Implicit Division of Labor in Simple Co-Operation]

Even if everyone does the *same*, his or her labor may represent a *different* phase of the labor process itself. Although this is still simple co-operation, it is already the transition to division of labor, which will briefly be mentioned in the next paragraph.

Although a number of men may be occupied together at the same time on the same, or the same kind of work, yet the labor of each, as a part of the collective labor, may correspond to a different phase of the labor-process, through all whose phases, in consequence of co-operation, the subject of their labor passes with greater speed. For instance, if a dozen masons place themselves in a row, so as to pass stones from the foot of a ladder to its summit, each of them does the same thing; nevertheless, their separate acts form connected parts of one total operation; they are particular phases, which must be gone through by each stone; and the stones are thus carried up quicker by the 24 hands of the row of men than they could be if each man went separately up and down the ladder with his burden.¹⁴ The object is carried over the same distance in a shorter time.

¹⁴ "On doit encore remarquer que cette division partielle de travail peut se faire quand même les ouvriers sont occupés d'une même besogne. Des maçons par exemple, occupés à faire passer de mains en mains des briques à un échafaudage supérieur, font tous la même besogne, et pourtant il existe parmi eux une espèce de division de travail, qui consiste en ce que chacun d'eux fait passer la brique par un espace donné, et que tous ensemble la font parvenir beaucoup plus promptement à l'endroit marqué qu'ils ne le feraient si chacun d'eux portait sa brique séparément jusqu'à l'échafaudage supérieur." (F. Skarbek: "Théorie des richesses sociales." Paris, 1839, t. I, pp. 97, 98.)

The next example is dual to the previous one:

Again, a combination of labor occurs whenever a building, for instance, is taken in

346:1 Obgleich viele dasselbe oder Gleichartiges gleichzeitig miteinander verrichten, kann die individuelle Arbeit eines jeden dennoch als Teil der Gesamtarbeit verschiedene Phasen des Arbeitsprozesses selbst darstellen, die der Arbeitsgegenstand, infolge der Kooperation, rascher durchläuft. Z.B. wenn Maurer eine Reihe von Händen bilden, um Bausteine vom Fuß eines Gerüsts bis zu seiner Spitze zu befördern, tut jeder von ihnen dasselbe, aber dennoch bilden die einzelnen Verrichtungen kontinuierliche Teile einer Gesamtverrichtung, besondere Phasen, die jeder Baustein im Arbeitsprozeß durchlaufen muß und wodurch ihn etwa die 24 Hände des Gesamtarbeiters rascher fördern als die zwei Hände jedes einzelnen Arbeiters, der das Gerüst auf- und abstiege.¹⁴ Der Arbeitsgegenstand durchläuft denselben Raum in kürzerer Zeit.

¹⁴ „Ferner muß man feststellen, daß diese partielle Arbeitsteilung auch da erfolgen kann, wo die Arbeiter mit einer gleichen Verrichtung beschäftigt sind. Maurer z.B., die Ziegel von Hand zu Hand zu einem höheren Gerüst wandern lassen, tun alle die gleiche Arbeit, und dennoch existiert unter ihnen eine Art von Arbeitsteilung, die darin besteht, daß jeder von ihnen den Ziegel ein bestimmtes Stück weiterwandern läßt und alle zusammen ihn viel schneller an den gegebenen Ort kommen lassen, als wenn jeder von ihnen seinen Ziegel einzeln bis zum höheren Gerüst hinauftrüge.“ (F. Skarbek, „Théorie des richesses sociales“, 2ème éd., Paris 1839, t. I, p. 97, 98.)

Andererseits findet Kombination der Arbeit statt, wenn ein Bau z.B. von verschiedenen

hand on different sides simultaneously; although here also the co-operating masons are doing the same, or the same kind of work. The 12 masons, in their collective working-day of 144 hours, make much more progress with the building than one mason could make working for 12 days, or 144 hours. The reason is, that a body of men working in concert has hands and eyes both before and behind, and is, to a certain degree, omnipresent. The various parts of the work progress simultaneously.

Seiten gleichzeitig angegriffen wird, obgleich die Kooperierenden dasselbe oder Gleichartige tun. Der kombinierte Arbeitstag von 144 Stunden, der den Arbeitsgegenstand vielseitig im Raum angreift, weil der kombinierte Arbeiter oder Gesamtarbeiter vorn und hinten Augen und Hände hat und in gewissem Grad Allgegenwart besitzt, fördert das Gesamtprodukt rascher als 12 zwölfstündige Arbeitstage mehr oder minder einzelner Arbeiter, die ihr Werk einseitiger angreifen müssen. In derselben Zeit reifen verschiedene Raumteile des Produkts.

↑ This implicit division of labor is an additional factor improving the productivity of simple co-operation.

Exam Question 955 *What is co-operation? What is simple co-operation? What is division of labor?*

13.2.c. [Simple Co-Operation Can Lead to Division of Labor]

The subject of the present chapter is co-operation in general, while the next chapter discusses division of labor and the one after that co-operation mediated by machinery. Marx does not want to anticipate these later chapters, therefore the examples in the present chapter are situations in which co-operation occurs without a change in the individual labor-process itself. One benefit of this kind of co-operation is that it allows, if the labor process is complicated, to *divide* the different operations between different hands. This division of labor will be discussed in the next chapter, but Marx mentions the potential of division of labor as one of the benefits of simple co-operation already here.

In the above instances we have laid stress upon the point that the men do the same, or the same kind of work, because this, the most simple form of labor in common, plays a great part in co-operation, even in its most fully developed stage.

346:2/o Wir betonten, daß die vielen, die einander ergänzen, dasselbe oder Gleichartige tun, weil diese einfachste Form gemeinsamer Arbeit auch in der ausgebildeten Gestalt der Kooperation eine große Rolle spielt.

↑ Marx explains now, after the fact, why his earlier examples referred to simple co-operation only.

If the work be complicated, then the mere number of the men who co-operate allows to apportion the various operations to different hands, and, consequently, to carry them on simultaneously. The time necessary for the completion of the whole work is thereby shortened.¹⁵

Ist der Arbeitsprozeß kompliziert, so erlaubt die bloße Masse der Zusammenarbeitenden, die verschiedenen Operationen unter verschiedene Hände zu verteilen, daher gleichzeitig zu verrichten und dadurch die zur Herstellung des Gesamtprodukts nötige Arbeitszeit zu verkürzen.¹⁵

¹⁵ „Est-il question d'exécuter un travail compliqué, plusieurs choses doivent être faites simultanément. L'un en fait une pendant que l'autre en fait une autre, et tous contribuent à l'effet

¹⁵ „Wenn es sich um die Ausführung einer komplizierten Arbeit handelt, müssen verschiedene Dinge gleichzeitig getan werden. Der eine macht das eine, während der andere etwas

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qu'un sent homme n'aurait pu produire. L'un rame pendant que l'autre tient le gouvernail, et qu'un troisième jette le filet on harponne le poisson, et la pêche a un succès impossible sans ce concours." (Destutt de Tracy, l.c.)

andres macht, und alle tragen zu einer Wirkung bei, die ein einzelner Mensch nicht hätte erzeugen können. Der eine rudert, während der andere steuert und ein dritter das Netz auswirft oder den Fisch harpuniert, und der Fischfang hat einen Erfolg, der ohne diese Kooperation unmöglich wäre." (Destutt de Tracy, l.c. p. 78.)

This apportionment to different laborers is called "division of labor," and Marx will devote the whole chapter Fourteen to it.

13.2.d. [Concentration in Time]

An increase in productivity is not the only benefit of co-operative labor. Co-operation also allows a large amount of labor to be concentrated in a short timespan or on a small area. In certain situations, this is very necessary and beneficial even if the productivity per worker is not increased:

In many industries, there are critical periods, determined by the nature of the process, during which certain definite results must be obtained. For instance, if a flock of sheep has to be shorn, or a field of wheat to be cut and harvested, the quantity and quality of the product depends on the work being begun and ended within a certain time. In these cases, the time that ought to be taken by the process is prescribed, just as it is in herring fishing. A single person cannot carve a working-day of more than, say 12 hours, out of the natural day, but 100 men co-operating extend the working-day to 1,200 hours. The shortness of the time allowed for the work is compensated for by the large mass of labor thrown upon the field of production at the decisive moment. The completion of the task within the proper time depends on the simultaneous application of numerous combined working-days; the amount of useful effect depends on the number of laborers; this number, however, is always smaller than the number of isolated laborers required to do the same amount of work in the same period.¹⁶

347:1 In vielen Produktionszweigen gibt es kritische Momente, d.h. durch die Natur des Arbeitsprozesses selbst bestimmte Zeitepochen, während deren bestimmte Arbeitsergebnisse erzielt werden müssen. Soll z.B. eine Herde Schafe geschoren oder eine Morgenanzahl Kornland gemäht und geherbstet werden, so hängt Quantität und Qualität des Produkts davon ab, daß die Operation zu einer gewissen Zeit begonnen und zu einer gewissen Zeit beendet wird. Der Zeitraum, den der Arbeitsprozeß einnehmen darf, ist hier vorgeschrieben, wie etwa beim Heringsfang. Der einzelne kann aus einem Tag nur einen Arbeitstag heraus-schneiden, sage von 12 Stunden, aber die Kooperation von 100 z.B. erweitert einen zwölfstündigen Tag zu einem Arbeitstag von 1200 Stunden. Die Kürze der Arbeitsfrist wird kompensiert durch die Größe der Arbeitsmasse, die im entscheidenden Augenblick auf das Produktionsfeld geworfen wird. Die rechtzeitige Wirkung hängt hier ab von der gleichzeitigen Anwendung vieler kombinierten Arbeitstage, der Umfang des Nutzeffekts von der Arbeiteranzahl, die jedoch stets kleiner bleibt als die Anzahl der Arbeiter, die vereinzelt in demselben Zeitraum denselben Wirkungsraum ausfüllen würden.¹⁶

¹⁶ “The doing of it (agricultural work) at the critical juncture is of so much the greater consequence.” (“An Inquiry into the Connexion between the Present Price,” etc., p. 9.) “In agriculture, there is no more important factor than that of time.” (Liebig: “Über Theorie und Praxis in der Landwirthschaft.” 1856, p. 23.)

¹⁶ „Ihre“ (der Arbeit in der Agrikultur) „Ausführung im entscheidenden Augenblick hat um so größere Wirkung.“ ([J. Arbuthnot,] „An Inquiry into the Connection between the present price etc.“, p. 7.) „In der Agrikultur gibt es keinen wichtigeren Faktor als den Faktor der Zeit.“ (Liebig, „Über Theorie und Praxis in der Landwirthschaft“, 1856, p. 23.)

↓ Destruction of wealth if such co-operation is not possible:

It is owing to the absence of this kind of co-operation that, in the western part of the United States, quantities of corn, and in those parts of East India where English rule has destroyed the old communities, quantities of cotton, are yearly wasted.¹⁷

¹⁷ “The next evil is one which one would scarcely expect to find in a country which exports more labor than any other in the world, with the exception, perhaps, of China and England—the impossibility of procuring a sufficient number of hands to clean the cotton. The consequence of this is that large quantities of the crop are left unpicked, while another portion is gathered from the ground when it has fallen, and is of course discoloured and partially rotted, so that for want of labor at the proper season the cultivator is actually forced to submit to the loss of a large part of that crop for which England is so anxiously looking.” (“Bengal Hurkaru.” Bi-Monthly Overland Summary of News, 22nd July, 1861.)

Es ist der Mangel dieser Kooperation, wodurch im Westen der Vereinigten Staaten eine Masse Korn und in den Teilen Ostindiens, wo englische Herrschaft das alte Gemeinwesen zerstört hat, eine Masse Baumwolle jährlich verwüstet wird.¹⁷

¹⁷ „Das nächste Übel, das man schwerlich in einem Lande zu finden erwartet, welches mehr Arbeit exportiert als irgendein andres der Welt, abgesehen vielleicht von China und England, besteht in der Unmöglichkeit, eine genügende Anzahl von Händen zur Baumwollernte zu beschaffen. Infolgedessen bleiben große Mengen Baumwolle ungepflückt, während ein andrer Teil von der Erde aufgesammelt wird, wenn er abgefallen und selbstverständlich verfärbt und teilweise verfault ist, so daß wegen Arbeitermangels zur richtigen Jahreszeit der Pflanze tatsächlich gezwungen ist, sich mit dem Verlust eines großen Teils jener Baumwollernte abzufinden, auf die England so sehr wartet.“ („Bengal Hurkaru. Bi-Monthly Overland Summary of News“, 22nd July 1861.)

13.2.e. [Spacial Extension and Contraction of Arena]

If we go from the time dimension to the spacial dimension, co-operation can help not only with concentration of labor in space but also with the extension of labor in space. Sometimes, co-operation is beneficial because it prevents the work area from spreading out too much, by arranging for the performance of many different labor processes in quick succession.

On the one hand, co-operation allows of the work being carried on over an extended space; it is consequently imperatively called for in certain undertakings, such as draining, constructing dykes, irrigation works, and the making of canals, roads and railways. On the other hand, while extending the scale of production, it renders possible a relative contraction of the arena. This contraction of arena simultaneous with, and arising from, extension of scale, whereby a number of

348:1 Auf der einen Seite erlaubt die Kooperation, die Raumsphäre der Arbeit auszudehnen, und wird daher für gewisse Arbeitsprozesse schon durch den räumlichen Zusammenhang des Arbeitsgegenstandes erheischt, wie bei Trockenlegung von Land, Eindämmung, Bewässerung, Kanal-, Straßen-, Eisenbahnbauten usw. Andererseits ermöglicht sie, verhältnismäßig zur Stufenleiter der Produktion, räumliche Verengung des Produktionsgebiets. Diese Be-

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useless expenses are cut down, is owing to the conglomeration of laborers, to the aggregation of various processes, and to the concentration of the means of production.¹⁸

¹⁸ In the progress of culture "all, and perhaps more than all, the capital and labor which once loosely occupied 500 acres, are now concentrated for the more complete tillage of 100." Although "relatively to the amount of capital and labor employed, space is concentrated, it is an enlarged sphere of production, as compared to the sphere of production formerly occupied or worked upon by one single independent agent of production." (R. Jones: "An Essay on the Distribution of Wealth," part I. On Rent. London, 1831. p. 191.)

schränkung der Raumsphäre der Arbeit bei gleichzeitiger Ausdehnung ihrer Wirkungssphäre, wodurch eine Masse falscher Kosten (*faux frais*) erspart werden, entspringt aus der Konglomeration der Arbeiter, dem Zusammenrücken verschiedener Arbeitsprozesse und der Konzentration der Produktionsmittel.¹⁸

¹⁸ „Beim Fortschritt in der Bodenbebauung wird alles Kapital und alle Arbeit, die früher zerstreut auf 500 acres verwandt wurden, ja vielleicht noch mehr, jetzt auf die gründlichere Bearbeitung von 100 acres konzentriert.“ Obgleich „im Verhältnis zum angewandten Betrage von Kapital und Arbeit der Raum enger geworden ist, stellt er doch eine erweiterte Produktionssphäre dar, im Vergleich zu der Produktionssphäre, die früher von einem einzigen, unabhängigen Produzenten besessen oder bebaut worden war“. (R. Jones, „An Essay on the Distribution of Wealth“, „On Rent“, London 1831, p. 191.)

13.2.f. [Summary: Social Productive Powers of Labor]

The concluding paragraph returns to the theme of social productive powers of co-operative labor broached in . If one compares the *product* of co-operation with the product of individual labor, one sees that co-operation is the source of a new productive force, the productive force of social labor, or the social productive force of labor. This paragraph also contains a summary of all points made so far:

The combined working-day produces, relatively to an equal sum of isolated working-days, a greater quantity of use-values, and, consequently, diminishes the labor-time necessary for the production of a given useful effect. Whether the combined working-day, in a given case, acquires this increased productive power, because it heightens the mechanical force of labor, or extends its sphere of action over a greater space, or contracts the field of production relatively to the scale of production, or at the critical moment sets large masses of labor to work, or excites emulation between individuals and raises their animal spirits, or impresses on the similar operations carried on by a number of men the stamp of continuity and many-sidedness, or performs simultaneously different operations, or economises the means of production by use in common,

348:2/o Verglichen mit einer gleich großen Summe vereinzelter individueller Arbeitstage, produziert der kombinierte Arbeitstag größere Massen von Gebrauchswert und vermindert daher die zur Produktion eines bestimmten Nutzeffekts nötige Arbeitszeit. Ob er im gegebenen Fall diese gesteigerte Produktivkraft erhält, weil er die mechanische Kraftpotenz der Arbeit erhöht oder ihre räumliche Wirkungssphäre ausdehnt oder das räumliche Produktionsfeld im Verhältnis zur Stufenleiter der Produktion verengt oder im kritischen Moment viel Arbeit in wenig Zeit flüssig macht oder den Wetteifer der einzelnen erregt und ihre Lebensgeister spannt oder den gleichartigen Verrichtungen vieler den Stempel der Continuität und Vielseitigkeit aufdrückt, oder verschiedene Operationen gleichzeitig verrichtet oder die Produktionsmittel durch ih-

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or lends to individual labor the character of average social labor—whichever of these be the cause of the increase, the special productive power of the combined working-day is, under all circumstances, a social productive power of labor, or a productive power of social labor. This power is due to co-operation itself.

ren gemeinschaftlichen Gebrauch ökonomisiert oder der individuellen Arbeit den Charakter gesellschaftlicher Durchschnittsarbeit verleiht, unter allen Umständen ist die spezifische Produktivkraft des kombinierten Arbeitstags gesellschaftliche Produktivkraft der Arbeit oder Produktivkraft gesellschaftlicher Arbeit. Sie entspringt aus der Kooperation selbst.

↓ The effect of this co-operation on the worker allows humans to be what they really are. In Hegelian terms, the particularity of the individual laborer is subsumed into the universality of the work force, and by extension, of the human race itself.

When the laborer co-operates systematically with others, he strips off the fetters of his individuality, and develops the capabilities of his species.¹⁹

Im planmäßigen Zusammenwirken mit andern streift der Arbeiter seine individuellen Schranken ab und entwickelt sein Gattungsvermögen.¹⁹

¹⁹ “La forza di ciascuno uomo è minima, ma la riunione delle minime forze forma una forza totale maggiore anche della somma delle forze medesime fino a che le forze per essere riunite possono diminuire il tempo ed accrescere lo spazio della loro azione.” (G. R. Carli, Note to P. Verri, I.c., t. xv., p. 196.)

¹⁹ „Die Kraft des einzelnen Menschen ist ganz gering, aber die Vereinigung der ganz geringen Kräfte ergibt eine Gesamtkraft, die größer ist als die Summe aller Teilkräfte, so daß schon die bloße Vereinigung der Kräfte die Zeit verringern und den Raum ihrer Wirkung vergrößern kann.“ (G. R. Carli, Note zu P. Verri, I.c., t. XV, p. 196.)

13.3. [The Capitalist Character of Co-operation]

Recall how co-operation was introduced: in order to make enough surplus-value, the capitalist had to hire a certain minimum number of laborers. Out of this simultaneous hiring of many workers grew their co-operation. Co-operation was therefore a by-product of the necessity to add the surplus-values of many individual laborers together so that the capitalist could be a full-time capitalist and therefore capital could become an independent force.

Once this co-operation was in place, it proved to be a very powerful lever for increased efficiency of the labor-process. The present section shows how this qualitative change in the production process acts back on and deepens the capitalist relations of production: the minimum size of capital increases, the command of the capitalist over the laborer gains more authority.

While Marx showed earlier that capitalist relations of production lead to co-operation; now he focuses on the reverse causality, the effects of co-operation on the capitalist relations of production. Marx’s starting point is therefore co-operation in capitalism.

↓ Wage-laborers can co-operate only if employed by the same capitalist:

As a general rule, laborers cannot co-operate without being brought together: their assemblage in one place is a necessary condition of their co-operation. Hence wage-laborers cannot co-operate, unless they are employed simultaneously by the same capital, the same capitalist, and un-

349:1 Wenn Arbeiter überhaupt nicht unmittelbar zusammenwirken können, ohne zusammen zu sein, ihre Konglomeration auf bestimmtem Raum daher Bedingung ihrer Kooperation ist, können Lohnarbeiter nicht kooperieren, ohne daß dasselbe Kapital, derselbe Kapitalist sie gleichzeitig anwendet,

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less therefore their labor-powers are bought simultaneously by him.

also ihre Arbeitskräfte gleichzeitig kauft.

What conditions must the capitalist relations satisfy so that co-operation is possible, and how does co-operation modify these relations?

13.3.a. [Minimum Size of Capital Determined by Technology]

The only *conditions* discussed by Marx derive from the necessity that the co-operating laborers must be employed by the same capitalist. First of all, this capitalist must have enough variable capital to hire many workers.

The total value of these labor-powers, or the amount of the wages of these laborers for a day, or a week, as the case may be, must be ready in the pocket of the capitalist, before the workmen are assembled for the process of production. The payment of 300 workmen at once, though only for one day, requires a greater outlay of capital, than does the payment of a smaller number of men, week by week, during a whole year. Hence the number of the laborers that co-operate, or the scale of co-operation, depends, in the first instance, on the amount of capital that the individual capitalist can spare for the purchase of labor-power; in other words, on the extent to which a single capitalist has command over the means of subsistence of a number of laborers.

Der Gesamtwert dieser Arbeitskräfte oder die Lohnsumme der Arbeiter für den Tag, die Woche usw., muß daher in der Tasche des Kapitalisten vereint sein, bevor die Arbeitskräfte selbst im Produktionsprozeß vereint werden. Zahlung von 300 Arbeitern auf einmal, auch nur für einen Tag, bedingt mehr Kapitalauslage als Zahlung weniger Arbeiter Woche für Woche, während des ganzen Jahrs. Die Anzahl der kooperierenden Arbeiter, oder die Stufenleiter der Kooperation, hängt also zunächst ab von der Größe des Kapitals, das der einzelne Kapitalist im Ankauf von Arbeitskraft auslegen kann, d.h. von dem Umfang, worin je ein Kapitalist über die Lebensmittel vieler Arbeiter verfügt.

↓ A second implication of the need to employ many workers is that the capitalists must have enough constant capital, although the increase is sub-proportional.

And as with the variable, so it is with the constant capital. For example, the outlay on raw material is 30 times as great, for the capitalist who employs 300 men, as it is for each of the 30 capitalists who employ 10 men. The value and quantity of the instruments of labor used in common do not, it is true, increase at the same rate as the number of workmen, but they do increase very considerably. Hence, concentration of large masses of the means of production in the hands of individual capitalists, is a material condition for the co-operation of wage-laborers, and the extent of the co-operation or the scale of production, depends on the extent of this concentration.

349:2 Und wie mit dem variablen, verhält es sich mit dem konstanten Kapital. Die Auslage für Rohmaterial z.B. ist 30mal größer für den einen Kapitalisten, der 300, als für jeden der 30 Kapitalisten, der je 10 Arbeiter beschäftigt. Wertumfang und Stoffmasse der gemeinsam benutzten Arbeitsmittel wachsen zwar nicht in demselben Grad wie die beschäftigte Arbeiteranzahl, aber sie wachsen beträchtlich. Konzentration größerer Massen von Produktionsmitteln in der Hand einzelner Kapitalisten ist also materielle Bedingung für die Kooperation von Lohnarbeitern, und der Umfang der Kooperation, oder die Stufenleiter der Produktion, hängt ab vom Umfang dieser Konzentration.

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↑ This last sentences echoes a parallel remark in the last sentence of the preceding paragraph regarding the variable capital only, and it will itself be echoed in the next chapter, about division of labor, in the last sentence of .

Question 956 *Is the degree of co-operation even today determined, limited, by the centralization of capital, or has the centralization overtaken the needs for co-operation?*

↓ In other words, limits of the capitalist relations of production which had been formal limits, i.e., which had arisen from the relations of production themselves, have turned now into technological conditions of production. One might say that “soft” limits have turned into “hard” limits.

We saw in a former chapter, that a certain minimum amount of capital was necessary, in order that the number of laborers simultaneously employed, and, consequently, the amount of surplus-value produced, might suffice to liberate the employer himself from manual labor, to convert him from a small master into a capitalist, and thus formally to establish capitalist production. We now see that a certain minimum amount is a necessary condition for the conversion of numerous isolated and independent processes into one combined social process.

349:3/o Ursprünglich erschien eine gewisse Minimalgröße des individuellen Kapitals notwendig, damit die Anzahl der gleichzeitig ausgebeuteten Arbeiter, daher die Masse des produzierten Mehrwerts hinreiche, den Arbeitsanwender selbst von der Handarbeit zu entbinden, aus einem Kleinmeister einen Kapitalisten zu machen und so das Kapitalverhältnis formell herzustellen. Sie erscheint jetzt als materielle Bedingung für die Verwandlung vieler zersplitterter und voneinander unabhängiger individueller Arbeitsprozesse in einen kombinierten gesellschaftlichen Arbeitsprozeß.

The “former chapter” is apparently the same reference alluded to in 322:1, namely, .

13.3.b. [Capitalist becomes Supervisor in Co-Operation]

A change in the supervisory role of the capitalist is a second effect of co-operation back on capitalist relations. The supervision of the labor of the wage laborer by the capitalist was at first *only* a formal consequence of the relation of production: it was a consequence of the capitalist’s ownership of the labor process. See Resultate for an elaboration of the tasks of the capitalist.

We also saw that at first, the subjection of labor to capital was only a formal result of the fact, that the laborer, instead of working for himself, works for and consequently under the capitalist.

350:1 Ebenso erschien ursprünglich das Kommando des Kapitals über die Arbeit nur als formelle Folge davon, daß der Arbeiter statt für sich, für den Kapitalisten und daher unter dem Kapitalisten arbeitet.

With the development of co-operation, some sort of organization and supervision becomes necessary for the labor process itself, not because of the capitalist nature of production but simply because the labor process is co-operative.

Since the capitalist is the one who brings the workers together, also this second kind of supervision falls to him. (This step is not given explicitly but mentioned as a side remark in). Since the supervision of co-operative labor is legitimate and necessary, also the capitalist’s supervision seems legitimate and necessary: his orders are as necessary as the general’s orders on the battlefield.

By the co-operation of numerous wage-laborers, the sway of capital develops into

Mit der Kooperation vieler Lohnarbeiter entwickelt sich das Kommando des Kapi-

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a requisite for carrying on the labor-process itself, into a real requisite of production. That a capitalist should command on the field of production, is now as indispensable as that a general should command on the field of battle.

⇓ Now Marx begins a major digression in which he distinguishes those elements of supervision which flow from the nature of co-operative labor from those which flow from capitalism. First some remarks about the co-operative labor process itself:

All combined labor on a large scale requires, more or less, a directing authority, in order to secure the harmonious working of the individual activities, and to perform the general functions that have their origin in the action of the combined organism, as distinguished from the action of its separate organs. A single violin player is his own conductor; an orchestra requires a separate one.

↑ Modern Jazz music shows that an orchestra does not always need a director: perhaps Marx was too timid in his assumptions how co-operation can be structured.

The work of directing, superintending, and adjusting becomes one of the functions of capital, from the moment that the labor under the control of capital, becomes co-operative. Once a function of capital, it acquires special characteristics.

The last sentence ↑ introduces the main topic of this digression, namely, specific characteristics of the supervision by the capitalist:

The driving motive and determining purpose of capitalist production is to extract the greatest possible amount of surplus-value,²⁰ and consequently to exploit labor-power to the greatest possible extent. As the number of the co-operating laborers increases, so too does their resistance to the domination of capital, and with it, the necessity for capital to overcome this resistance by counterpressure. The control exercised by the capitalist is not only a particular function springing from the nature of the social labor-process which falls to the capitalist, but it is, at the same time, a function of the exploitation of a social labor-process, and is consequently rooted in the unavoidable antagonism between the exploiter and the tar-

tals zum Erheischnis für Ausführung des Arbeitsprozesses selbst, zu einer wirklichen Produktionsbedingung. Der Befehl des Kapitalisten auf dem Produktionsfeld wird jetzt so unentbehrlich wie der Befehl des Generals auf dem Schlachtfeld.

350:2 Alle unmittelbar gesellschaftliche oder gemeinschaftliche Arbeit auf größtem Maßstab bedarf mehr oder minder einer Direktion, welche die Harmonie der individuellen Tätigkeiten vermittelt und die allgemeinen Funktionen vollzieht, die aus der Bewegung des produktiven Gesamtkörpers im Unterschied von der Bewegung seiner selbständigen Organe entspringen. Ein einzelner Violinspieler dirigiert sich selbst, ein Orchester bedarf des Musikdirektors.

Diese Funktion der Leitung, Überwachung und Vermittlung, wird zur Funktion des Kapitals, sobald die ihm untergeordnete Arbeit kooperativ wird. Als spezifische Funktion des Kapitals erhält die Funktion der Leitung spezifische Charaktermale.

350:3/o Zunächst ist das treibende Motiv und der bestimmende Zweck des kapitalistischen Produktionsprozesses möglichst große Selbstverwertung des Kapitals,²⁰ d.h. möglichst große Produktion von Mehrwert, also möglichst große Ausbeutung der Arbeitskraft durch den Kapitalisten. Mit der Masse der gleichzeitig beschäftigten Arbeiter wächst ihr Widerstand und damit notwendig der Druck des Kapitals zur Bewältigung dieses Widerstands. Die Leitung des Kapitalisten ist nicht nur eine aus der Natur des gesellschaftlichen Arbeitsprozesses entspringende und ihm angehörige besondere Funktion, sie ist zugleich Funktion der Ausbeutung eines gesellschaftlichen Arbeitsprozesses und daher bedingt durch den

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get of his exploitation.

²⁰ “Profits . . . is the sole end of trade.” (J. Vanderlint, l.c., p. 11.)

unvermeidlichen Antagonismus zwischen dem Ausbeuter und dem Rohmaterial seiner Ausbeutung.

²⁰ „Profite . . . sind der einzige Zweck des Geschäfts.“ (J. Vanderlint, l.c. p. 11.)

Question 957 *Explain the twofold character of the control of the capitalist over the worker. Where are the foremen in this relationship?*

⇓ The resistance of the workers to exploitation and overwork is one reason why more supervision is necessary. But the need for supervision grows also for other reasons. Since the means of production confront the laborer as alien property, they need protection from the worker’s wrath.

Again, in proportion to the increasing mass of the means of production, now no longer the property of the laborer, but of the capitalist, the necessity increases for some effective control over the proper application of those means.²¹

²¹ That Philistine paper, the *Spectator*, states that after the introduction of a sort of partnership between capitalist and workmen in the “Wire-work Company of Manchester,” “the first result was a sudden decrease in waste, the men not seeing why they should waste their own property any more than any other master’s, and waste is, perhaps, next to bad debts, the greatest source of manufacturing loss.” The same paper finds that the main defect in the Rochdale co-operative experiments is this: “They showed that associations of workmen could manage shops, mills, and almost all forms of industry with success, and they immediately improved the condition of the men; but then they did not leave a clear place for masters.” Quelle horreur!

Ebenso wächst mit dem Umfang der Produktionsmittel, die dem Lohnarbeiter als fremdes Eigentum gegenüberstehn, die Notwendigkeit der Kontrolle über deren sachgemäße Verwendung.²¹

²¹ Ein englisches Philisterblatt, der „Spectator“ vom 26. Mai 1866, berichtet, daß nach Einführung einer Art von Kompagniegeschäft zwischen Kapitalist und Arbeitern in der „wire-work company of Manchester“: „das erste Ergebnis eine plötzliche Abnahme der Materialverschwendung war, da die Arbeiter nicht einsahen, weshalb sie mit ihrem Eigentum verschwenderischer umgehen sollten als mit dem der Kapitalisten, und Materialverschwendung ist neben schlechten Außenständen vielleicht die größte Verlustquelle in den Fabriken“. Das selbe Blatt entdeckt als Grundmangel der Rochdale co-operative experiments: „They showed that associations of workmen could manage shops, mills, and almost all forms of industry with success, and they immensely improved the condition of the men, but then they did not leave a clear place for masters.“ („Sie bewiesen, daß Arbeiterassoziationen Boutiquen, Fabriken und beinahe alle Formen der Industrie mit Erfolg handhaben können, und sie verbesserten außerordentlich die Lage der Leute selbst, aber! aber, dann ließen sie keinen sichtbaren Platz für Kapitalisten offen.“ Quelle horreur!)

Not only the means of production are alien to the workers, also their own connexion is imposed on them. The direction of their co-operation is therefore not participatory but despotic:

Moreover, the co-operation of wage-laborers is entirely brought about by the capital that employs them. Their union into one single

Die Kooperation der Lohnarbeiter ist ferner bloße Wirkung des Kapitals, das sie gleichzeitig anwendet. Der Zusammenhang ihrer

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productive body and the establishment of a connexion between their individual functions, are matters foreign and external to them, are not their own act, but the act of the capital that brings and keeps them together. Hence the connexion existing between their various labors confronts them, notionally, in the shape of a preconceived plan of the capitalist, and practically in the shape of the authority of the same capitalist, in the shape of the powerful will of another, who subjects their activity to his aims.

↑ This is the most profound critique of the capitalist's leadership: it does not organically flow from the labor process itself but is imposed by an alien structure. ↓ The next paragraph juxtaposes form and content of this despotism:

While the direction by the capitalist is therefore in substance two-fold—by reason of the two-fold nature of the process of production itself, which, on the one hand, is a social process for producing use-values, on the other, a process for creating surplus-value—the direction by the capitalist is, in form, despotic.

↑ in chapter Fourteen talks about the dialectics between anarchy of the market and despotism in the production process.

↓ At this point, Marx briefly touches on the developmental forms of this despotism with the development of large-scale capitalist co-operation.

As co-operation extends its scale, this despotism takes its own peculiar forms. Just as at first the capitalist is relieved from actual labor so soon as his capital has reached that minimum amount with which capitalist production, as such, begins, so now, he hands over the work of direct and constant supervision of the individual workmen, and groups of workmen, to a special kind of wage-laborer. An industrial army of workmen, under the command of a capitalist, requires, like a real army, officers (managers), and sergeants (foremen, overlookers), who, while the work is being done, command in the name of the capitalist. The work of supervision becomes their established and exclusive function.

Funktionen und ihre Einheit als produktiver Gesamtkörper liegen außer ihnen, im Kapital, das sie zusammenbringt und zusammenhält. Der Zusammenhang ihrer Arbeiten tritt ihnen daher ideell als Plan, praktisch als Autorität des Kapitalisten gegenüber, als Macht eines fremden Willens, der ihr Tun seinem Zweck unterwirft.

351:1/o Wenn daher die kapitalistische Leitung dem Inhalt nach zwieschlächtig ist, wegen der Zwieschlächtigkeit des zu leitenden Produktionsprozesses selbst, welcher einerseits gesellschaftlicher Arbeitsprozeß zur Herstellung eines Produkts, andererseits Verwertungsprozeß des Kapitals, so ist sie der Form nach despotisch.

Mit der Entwicklung der Kooperation auf größtem Maßstab entwickelt dieser Despotismus seine eigentümlichen Formen. Wie der Kapitalist zunächst entbunden wird von der Handarbeit, sobald sein Kapital jene Minimalgröße erreicht hat, womit die eigentlich kapitalistische Produktion erst beginnt, so tritt er jetzt die Funktion unmittelbarer und fortwährender Beaufsichtigung der einzelnen Arbeiter und Arbeitergruppen selbst wieder ab an eine besondere Sorte von Lohnarbeitern. Wie eine Armee militärischer, bedarf eine unter dem Kommando desselben Kapitals zusammenwirkende Arbeitermasse industrieller Oberoffiziere (Dirigenten, managers) und Unteroffiziere (Arbeitsaufseher, foremen, overlookers, contre-mâtres), die während des Arbeitsprozesses im Namen des Kapitals kommandieren. Die Arbeit der Oberaufsicht befestigt sich zu ihrer ausschließlichen Funktion.

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Next, Marx discusses the connection between the two sides of this supervision, namely, (1) coming from the co-operative nature of the labor process itself, and (2) coming from exploitation.

When comparing the mode of production of isolated peasants and artisans with production by slave-labor, the political economist counts this labor of superintendence among the *faux frais* of production.^{21a} But, when considering the capitalist mode of production, he, on the contrary, treats the work of control made necessary by the co-operative character of the labor-process as identical with the different work of control, necessitated by the capitalist character of that process and the antagonism of interests between capitalist and laborer.²²

Bei Vergleichung der Produktionsweise unabhängiger Bauern oder selbständiger Handwerker mit der auf Sklaverei beruhenden Plantagenwirtschaft zählt der politische Ökonom diese Arbeit der Oberaufsicht zu den *faux frais de production*.^{21a} Bei Betrachtung der kapitalistischen Produktionsweise identifiziert er dagegen die Funktion der Leitung, soweit sie aus der Natur des gemeinschaftlichen Arbeitsprozesses entspringt, mit derselben Funktion, soweit sie durch den kapitalistischen und daher antagonistischen Charakter dieses Prozesses bedingt wird.²²

↑ In slavery, the political economists considered it only as *faux frais* of production (only point 2), while in capitalism, all supervision is attributed to the co-operative character of the labor process (only point 1). Side (1) falls to the capitalist because he has from the beginning side (2).

^{21a} Professor Cairnes, after stating that the superintendence of labor is a leading feature of production by slaves in the Southern States of North America, continues: "The peasant proprietor (of the North), appropriating the whole produce of his toil, needs no other stimulus to exertion. Superintendence is here completely dispensed with." (Cairnes, l.c., pp. 48, 49.)

^{21a} Nachdem Professor Cairnes die „superintendence of labour“ als einen Hauptcharakter der Sklavenproduktion in den südlichen Staaten von Nordamerika dargestellt hat, fährt er fort: „Da der bäuerliche Eigentümer“ (des Nordens) „das ganze Produkt seines Bodens für sich behält, braucht er keine besonderen Ansporn zur Anstrengung. Überwachung wird hier völlig unnötig.“ (Cairnes, l.c. p. 48, 49.)

²² Sir James Steuart, a writer altogether remarkable for his quick eye for the characteristic social distinctions between different modes of production, says: "Why do large undertakings in the manufacturing way ruin private industry, but by coming nearer to the simplicity of slaves?" ("Prin. of Pol. Econ.," London, 1767, v. I., pp. 167, 168.)

²² Sir James Steuart, überhaupt ausgezeichnet durch offnes Auge für die charakteristisch-gesellschaftlichen Unterschiede verschiedener Produktionsweisen, bemerkt: „Warum vernichten große Manufakturunternehmen das Hausgewerbe, wenn nicht dadurch, daß sie der Einfachheit der Sklavenarbeit näher kommen?“ („Princ. of Pol. Econ.“, London 1767, v. I, p. 167, 168.)

It is not because he is a leader of industry that a man is a capitalist; on the contrary, he is a leader of industry because he is a capitalist. The leadership of industry is an attribute of capital, just as in feudal times the functions of general and judge were attributes of landed property.^{22a}

Der Kapitalist ist nicht Kapitalist, weil er industrieller Leiter ist, sondern er wird industrieller Befehlshaber, weil er Kapitalist ist. Der Oberbefehl in der Industrie wird Attribut des Kapitals, wie zur Feudalzeit der Oberbefehl in Krieg und Gericht Attribut des Grundeigentums war.^{22a}

^{22a} Auguste Comte and his school might therefore have shown that feudal lords are an eternal necessity in the same way that they have

^{22a} Auguste Comte und seine Schule hätten daher in derselben Art die ewige Notwendigkeit von Feudalherrn beweisen können, wie sie dies

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done in the case of the lords of capital.

für die Kapitalherrschaft getan.

13.3.c. [The Social Productive Powers of Labor Belong to Capital]

The central relation of capitalism is the sale and consumption of labor-power, which creates surplus-value. This relation is modified by co-operation as well. The laborer always sells his or her labor as an individual seller. Since the capitalist is the one who combines the laborers, the capitalist receives the social productive forces of the co-operation of many laborers at a zero price. They become productive forces of capital.

The laborer is the owner of his labor-power until he has done bargaining for its sale with the capitalist; and he can sell no more than what he has, i.e., his individual, isolated labor-power. This state of things is in no way altered by the fact that the capitalist, instead of buying the labor-power of one man, buys that of 100, and enters into separate contracts with 100 unconnected men instead of with one. He is at liberty to set the 100 men to work, without letting them co-operate. He pays them the value of 100 independent labor-powers, but he does not pay for the combined labor-power of the hundred. Being independent of each other, the laborers are isolated persons, who enter into relations with the capitalist, but not with one another. This co-operation begins only with the labor-process, but they have then ceased to belong to themselves. On entering that process, they become incorporated with capital. As co-operators, as members of a working organism, they are but special modes of existence of capital.

352:1/o Eigentümer seiner Arbeitskraft ist der Arbeiter, solange er als Verkäufer derselben mit dem Kapitalist handelt, und er kann nur verkaufen, was er besitzt, seine individuelle, vereinzelte Arbeitskraft. Dies Verhältnis wird in keiner Weise dadurch verändert, daß der Kapitalist 100 Arbeitskräfte statt einer kauft oder mit 100 voneinander unabhängigen Arbeitern Kontrakte schließt statt mit einem einzelnen. Er kann die 100 Arbeiter anwenden, ohne sie kooperieren zu lassen. Der Kapitalist zahlt daher den Wert der 100 selbständigen Arbeitskräfte, aber er zahlt nicht die kombinierte Arbeitskraft der Hundert. Als unabhängige Personen sind die Arbeiter Vereinzelte, die in ein Verhältnis zu demselben Kapital, aber nicht zueinander treten. Ihre Kooperation beginnt erst im Arbeitsprozeß, aber im Arbeitsprozeß haben sie bereits aufgehört, sich selbst zu gehören. Mit dem Eintritt in denselben sind sie dem Kapital einverleibt. Als Kooperierende, als Glieder eines werktätigen Organismus, sind sie selbst nur eine besondere Existenzweise des Kapitals.

↑ This is a form of alienation. ↓ The social productive powers of labor are productive power of capital which it seems to possess *by nature*.

Hence, the productive power which the laborer develops when working in co-operation, is the productive power of capital. This social productive power of labor develops itself without cost to capital, whenever the workmen are placed under the appropriate conditions, and it is capital that places them under such conditions. Because this power costs capital nothing, and because, on the other hand, the laborer himself does not develop it before his labor belongs to capital, it appears as a power with which capital

Die Produktivkraft, die der Arbeiter als gesellschaftlicher Arbeiter entwickelt, ist daher Produktivkraft des Kapitals. Die gesellschaftliche Produktivkraft der Arbeit entwickelt sich unentgeltlich, sobald die Arbeiter unter bestimmte Bedingungen gestellt sind, und das Kapital stellt sie unter diese Bedingungen. Weil die gesellschaftliche Produktivkraft der Arbeit dem Kapital nichts kostet, weil sie andererseits nicht von dem Arbeiter entwickelt wird, bevor seine Arbeit selbst dem Kapital gehört, erscheint

13.4. [Historical Overview of Simple Co-Operation]

is endowed by nature, as capital's inherent productive power.

sie als Produktivkraft, die das Kapital von Natur besitzt, als seine immanente Produktivkraft.

The sentence “the social productive power of labor ... appears ... as capital's inherent productive power” illustrates well how the word “appears as” is to be understood. The laborers are combined under the ownership and command of capital, therefore the benefits of the social productive powers of the workers fall to the capitalist. The workers do not have a claim on these productive powers because they have, one by one, sold their labor-power to capital. The word “appears” not only describes what things look like, but it also describes the social relations—which are such as if the productive powers came from capital rather than the workers. (Is this again the look at it from the form side?)

Question 958 *What is the “productive power of capital”? Does it come from capital or from the worker?*

This paragraph is parallel to the earlier : Capital profits from the difference between individual labor and co-operative labor. In modern economics, the benefits from the co-operative labor process are called “economies of scale.” This terminology makes it sound as if these benefits came from capital, not from labor.

Question 959 *What effects does co-operation have on the working class?*

Question 960 *Is the subject of chapter Thirteen, on Co-operation, simply the economies of scale, without Marx ever using this term, or is something else going on?*

13.4. [Historical Overview of Simple Co-Operation]

The historical overview in the rest of the chapter culminates in a characterization of the historical role of capitalism. The first two paragraphs discuss the role of co-operation in the different relations of production.

The colossal effects of simple co-operation are to be seen in the gigantic structures of the ancient Asiatics, Egyptians, Etruscans, etc.

353:1–2 Kolossal zeigt sich die Wirkung der einfachen Kooperation in den Riesenwerken der alten Asiaten, Ägypter, Etrusker usw.

“It has happened in times past that these Oriental States, after supplying the expenses of their civil and military establishments, have found themselves in possession of a surplus which they could apply to works of magnificence or utility and in the construction of these their command over the hands and arms of almost the entire non-agricultural population has produced stupendous monuments which still indicate their power. The teeming valley of the Nile ... produced food for a swarming non-agricultural population, and this food, belonging to the monarch and the priesthood, afforded the means of erecting the mighty monuments which filled the land ... In moving the

„Es geschah in vergangenen Zeiten, daß diese asiatischen Staaten nach Bestreitung ihrer Zivil- und Militärausgaben sich im Besitz eines Überschusses von Lebensmitteln befanden, die sie für Werke der Pracht und des Nutzens verausgaben konnten. Ihr Kommando über die Hände und Arme fast der ganzen nicht ackerbauenden Bevölkerung und die ausschließliche Verfügung des Monarchen und der Priesterschaft über jenen Überschuß boten ihnen die Mittel zur Errichtung jener mächtigen Monumente, womit sie das Land erfüllten ... In der Bewegung der kolossalen Statuen und der enormen Massen, deren Transport Staunen erregt, wurde fast nur menschli-

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colossal statues and vast masses of which the transport creates wonder, human labor almost alone, was prodigally used ... The number of the laborers and the concentration of their efforts sufficed. We see mighty coral reefs rising from the depths of the ocean into islands and firm land, yet each individual depositor is puny, weak, and contemptible. The non-agricultural laborers of an Asiatic monarchy have little but their individual bodily exertions to bring to the task, but their number is their strength, and the power of directing these masses gave rise to the palaces and temples, the pyramids, and the armies of gigantic statues of which the remains astonish and perplex us. It is that confinement of the revenues which feed them, to one or a few hands, which makes such undertakings possible.”²³

²³ R. Jones, “Textbook of Lectures,” etc., pp. 77, 78. The ancient Assyrian, Egyptian, and other collections in London, and in other European capitals, make us eye-witnesses of the modes of carrying on that co-operative labor.

The examples of the Egyptian pyramids, etc., show two things. (1) How powerful simple co-operation is (not machinery or division of labor), as long as it combines sufficiently many people in the same labor process. (2) The social prerequisite for this co-operation was the concentration of enough money in one or few hands to pay for the livelihood of the laborers.

This power of Asiatic and Egyptian kings, Etruscan theocrats, etc., has in modern society been transferred to the capitalist, whether he be an isolated, or as in joint-stock companies, a collective capitalist.

che Arbeit verschwenderisch angewandt. Die Zahl der Arbeiter und die Konzentration ihrer Mühen genügte. So sahen wir mächtige Korallenriffe aus den Tiefen des Ozeans zu Inseln anschwellen und festes Land bilden, obgleich jeder individuelle Ablagerer (depositary) winzig, schwach und verächtlich ist. Die nicht ackerbauenden Arbeiter einer asiatischen Monarchie haben außer ihren individuellen körperlichen Bemühungen wenig zum Werk zu bringen, aber ihre Zahl ist ihre Kraft, und die Macht der Direktion über diese Massen gab jenen Riesenwerken den Ursprung. Es war die Konzentration der Revenuen, wovon die Arbeiter leben, in einer Hand oder wenigen Händen, welcher solche Unternehmungen möglich machte.“²³

²³ R. Jones, „Text-book of Lectures etc.“, p. 77, 78. Die altassyrischen, ägyptischen usw. Sammlungen in London und andren europäischen Hauptstädten machen uns zu Augenzeugen jener kooperativen Arbeitsprozesse.

353:3 Diese Macht asiatischer und ägyptischer Könige oder etruskischer Theokraten usw. ist in der modernen Gesellschaft auf den Kapitalisten übergegangen, ob er nun als vereinzelter Kapitalist auftritt, oder, wie bei Aktiengesellschaften, als kombinierter Kapitalist.

↑ The concentration of enough money in one or few hands to pay for the livelihood of the laborers is still a condition for today’s capitalist co-operation: these income streams are combined in the hands of the capitalists.

The next paragraph points out some important *differences* between these early forms of co-operation and capitalistic co-operation: Those were based on common ownership of production, this on private ownership. Those were based on the fact that the individual had not yet torn himself off from the navel-string of the tribe or community; this is based on individualization. Those based on relation of domination and servitude, often slavery; this on the laborer formally freely selling his labor-power.

Co-operation, such as we find it at the dawn of human development, among races who live by the chase,^{23a} or, say, in the agriculture of Indian communities, is based, on the one hand, on ownership in common of the means of production, and on the other

353:4/o Die Kooperation im Arbeitsprozeß, wie wir sie in den Kulturanfängen der Menschheit, bei Jägervölkern^{23a} oder etwa in der Agrikultur indischer Gemeinwesen vorherrschend finden, beruht einerseits auf dem Gemeineigentum an den Produk-

13.4. [Historical Overview of Simple Co-Operation]

hand, on the fact, that in those cases, each individual has no more torn himself off from the navel-string of his tribe or community, than each bee has freed itself from connexion with the hive. Such co-operation is distinguished from capitalistic co-operation by both of the above characteristics. The sporadic application of co-operation on a large scale in ancient times, in the middle ages, and in modern colonies, reposes on relations of dominion and servitude, principally on slavery. The capitalistic form, on the contrary, pre-supposes from first to last, the free wage-laborer, who sells his labor-power to capital.

^{23a} Linguet, in his “Théorie des Lois Civiles,” is probably right, when he declares hunting to be the first form of co-operation, and man-hunting (war) one of the earliest forms of hunting.

tionsbedingungen, andererseits darauf, daß das einzelne Individuum sich von der Nabelschnur des Stammes oder des Gemeinwesens noch ebensowenig losgerissen hat wie das Bienenindividuum vom Bienenstock. Beides unterscheidet sie von der kapitalistischen Kooperation. Die sporadische Anwendung der Kooperation auf großem Maßstab in der antiken Welt, dem Mittelalter und den modernen Kolonien beruht auf unmittelbaren Herrschafts- und Knechtschaftsverhältnissen, zumeist auf der Sklaverei. Die kapitalistische Form setzt dagegen von vornherein den freien Lohnarbeiter voraus, der seine Arbeitskraft dem Kapital verkauft.

^{23a} Linguet in seiner „Théorie des Lois civiles“ hat vielleicht nicht unrecht, wenn er die Jagd für die erste Form der Kooperation und Menschenjagd (Krieg) für eine der ersten Formen der Jagd erklärt.

Question 961 *Is there a connection between war and co-operation?*

⇓ For this historical overview it is also important to note that capitalist co-operation is not the culmination of a historical succession of large scale co-operation. Rather, capitalism arose from a mode of production with little direct co-operation between different producers: Historically, however, this form is developed in opposition to peasant agriculture and to the carrying on of independent handicrafts whether in guilds or not.²⁴ From the standpoint of these, capitalist co-operation does not appear as a particular historical form of co-operation, but co-operation itself as a historical form peculiar to, and specifically distinguishing, the capitalist process of production.

²⁴ Peasant agriculture on a small scale, and the carrying on of independent handicrafts, which together form the basis of the feudal mode of production, and after the dissolution of that system, continue side by side with the capitalist mode, also form the economic foundation of the classical communities at their best, after the primitive form of ownership of land in common had disappeared, and before slavery had seized on production in earnest.

Historisch jedoch entwickelt sie sich im Gegensatz zur Bauernwirtschaft und zum unabhängigen Handwerksbetrieb, ob dieser zünftige Form besitze oder nicht.²⁴ Ihnen gegenüber erscheint die kapitalistische Kooperation nicht als eine besondere historische Form der Kooperation, sondern die Kooperation selbst als eine dem kapitalistischen Produktionsprozeß eigentümliche und ihn spezifisch unterscheidende historische Form.

²⁴ Die kleine Bauernwirtschaft und der unabhängige Handwerksbetrieb, die beide teils die Basis der feudalen Produktionsweise bilden, teils nach deren Auflösung neben dem kapitalistischen Betrieb erscheinen, bilden zugleich die ökonomische Grundlage der klassischen Gemeinwesen zu ihrer besten Zeit, nachdem sich das ursprünglich orientalische Gemeineigentum aufgelöst und bevor sich die Sklaverei der Produktion ernsthaft bemächtigt hat.

The next paragraph places *capitalist* co-operation in historical perspective. Compare also 619:1/o in the accumulation chapter.

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The highest pre-capitalistic mode of production was the so-called petty production (Kleinbetrieb). This mode of production, in which the *individualized* productive forces find their ultimate development, is the necessary condition for the development of the free individuality of the producers themselves. The relation of production which fits best to this mode of production is the private ownership of the means of production by the producers themselves. Such private ownership does not allow for direct co-operation of several producers in the same labor process (exception military). This does not mean that petty production is not co-operative. Any social production is co-operative in some form. In petty production this co-operation does not have the form that the producers work side by side together in the same labor process, but the social production process is divided into many individual labor processes in which only one person produces one kind of commodity.

In earlier economic formations, the social production process was directly co-operative. However this co-operation was either based on communal property and societies in which the individual has not yet freed himself of the navelstring of the community, or direct domination and subordination (slavery etc.). The relations of production and also the mode of production had been inferior to petty production.

What is new about the co-operation under capitalism as opposed to those early forms of co-operation is that for the first time producers co-operate whose individuality is freely developed and who are not in a direct relationship of subordination. Although the capitalists give the labor process this co-operative form only in order to be able to exploit it better, they fulfill at the same time the historical task of developing the co-operative labor process.

Question 962 *What distinguishes capitalist co-operation from earlier forms of co-operation?*

Just as the social productive power of labor that is developed by co-operation, appears to be the productive power of capital, so co-operation itself, contrasted with the process of production carried on by isolated independent laborers, or even by small employers, appears to be a specific form of the capitalist process of production. It is the first change experienced by the actual labor-process, when subjected to capital. This change takes place spontaneously. The simultaneous employment of a large number of wage-laborers, in one and the same process, which is a necessary condition of this change, also forms the starting-point of capitalist production. This point coincides with the birth of capital itself. If then, on the one hand, the capitalist mode of production presents itself to us historically, as a necessary condition to the transformation of the labor-process into a social process, so, on the other hand, this social form of the labor-process presents itself, as a method employed by capital for the more profitable

354:1 Wie die durch die Kooperation entwickelte gesellschaftliche Produktivkraft der Arbeit als Produktivkraft des Kapitals erscheint, so die Kooperation selbst als eine spezifische Form des kapitalistischen Produktionsprozesses im Gegensatz zum Produktionsprozeß vereinzelter unabhängiger Arbeiter oder auch Kleinmeister. Es ist die erste Änderung, welche der wirkliche Arbeitsprozeß durch seine Subsumtion unter das Kapital erfährt. Diese Änderung geht naturwüchsig vor sich. Ihre Voraussetzung, gleichzeitige Beschäftigung einer größeren Anzahl von Lohnarbeitern in demselben Arbeitsprozeß, bildet den Ausgangspunkt der kapitalistischen Produktion. Dieser fällt mit dem Dasein des Kapitals selbst zusammen. Wenn sich die kapitalistische Produktionsweise daher einerseits als historische Notwendigkeit für die Verwandlung des Arbeitsprozesses in einen gesellschaftlichen Prozeß darstellt, so andererseits diese gesellschaftliche Form des Arbeitsprozesses als eine vom Kapital angewandte Methode, um

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exploitation of labor, by increasing that labor's productiveness.

ihn durch Steigerung seiner Produktivkraft profitlicher auszubeuten.

A clearer formulation of this last sentence can be found in the French edition, where it forms a paragraph of its own: "We see that the capitalistic mode of production presents itself as a historic necessity to transform the isolated labor into social labor; however, in the hands of capital, this socialization of labor augments the productive forces of labor only in order to exploit it with more profit." Note that the means and the end are interchanged in a cunning-of-reason-like fashion: While capitalism uses the co-operative production process for its own ends, in order to increase its profits, to better exploit labor, history uses capitalism as a means to achieve a co-operative production process.

↓ Although co-operation is real, it does not, or only very cursorily, represent a specific evolutionary phase in the history of capitalism.

In the elementary form, under which we have hitherto viewed it, co-operation is a necessary concomitant of all production on a large scale, but it does not, in itself, represent a fixed form characteristic of a particular epoch in the development of the capitalist mode of production. At the most it appears to do so, and that only approximately, in the handicraft-like beginnings of manufacture,²⁵ and in that kind of agriculture on a large scale, which corresponds to the epoch of manufacture, and is distinguished from peasant agriculture, mainly by the number of the laborers simultaneously employed, and by the mass of the means of production concentrated for their use. Simple co-operation is always the prevailing form, in those branches of production in which capital operates on a large scale, and division of labor and machinery play but a subordinate part.

354:2/o In ihrer bisher betrachteten einfachen Gestalt fällt die Kooperation zusammen mit der Produktion auf größerer Stufenleiter, bildet aber keine feste charakteristische Form einer besondern Entwicklungs-epoche der kapitalistischen Produktionsweise. Höchstens erscheint sie annähernd so in den noch handwerksmäßigen Anfängen der Manufaktur²⁵ und in jener Art großer Agrikultur, welche der Manufakturperiode entspricht und sich wesentlich nur durch die Masse der gleichzeitig angewandten Arbeiter und den Umfang der konzentrierten Produktionsmittel von der Bauernwirtschaft unterscheidet. Die einfache Kooperation ist stets noch vorherrschende Form solcher Produktionszweige, worin das Kapital auf großer Stufeneiter operiert, ohne daß Teilung der Arbeit oder Maschinerie eine bedeutende Rolle spielte.

Misprint in the German edition:
"jeder Art großer Agrikultur"

should read "jener." French: en ce genre, English: in that kind. Also

Volksausgabe has "jener."

²⁵ "Whether the united skill, industry, and emulation of many together on the same work be not the way to advance it? And whether it had been otherwise possible for England, to have carried on her Woollen Manufacture to so great a perfection?" (Berkeley. "The Querist." London, 1751, p. 56, par. 521.)

Co-operation ever constitutes the fundamental form of the capitalist mode of production. Nevertheless the elementary form of co-operation continues to subsist as a par-

²⁵ „Ist nicht die Vereinigung von Geschicklichkeit, Fleiß und Wetteifer vieler zusammen am selben Werk der Weg, es vorwärts zu bringen? Und wäre es sonst England möglich gewesen, seine Wollmanufaktur zu einem solchen Grad der Vollendung zu bringen?“ (Berkeley, „The Querist“, Lond. 1750, p. 56, § 521.)

355:1 Die Kooperation bleibt die Grundform der kapitalistischen Produktionsweise, obgleich ihre einfache Gestalt selbst als besondere Form neben ihren weiterentwickel-

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ticular form side by side with the more de- | ten Formen erscheint.
veloped forms of co-operation.

↑ This last sentence of the chapter is somewhat ambiguous in German and has given rise to incorrect translations in English. The French version [megaII/7]287:4 is clearer and unambiguous: “Co-operation is the *fundamental mode* of capitalist production. The rudimentary form of co-operation, while containing the germ for more complex forms, not only reappears in these more complex forms as one of their elements, but maintains itself also beside them as a particular mode.”

↑ These last two paragraphs are connected with the beginning of the next chapter.

14. Division of Labor and Manufactories

While the modern English word “manufacture” refers to any site of mass production, the German “*Manufaktur*” refers to a specific mass production technology which does not use heavy machinery but which achieves efficiency by division of labor and specialization of the workers. We will use the translation “manufactory” for this. Chapter Fourteen explains the origin of capitalist manufactories, why manufactories were the characteristic form of capitalist production for over 200 years, but why they then gave way to a different production technology (production using machines, discussed in chapter Fifteen).

14.1. Two-Fold Origin of Manufactories

⇓ The first paragraph is an introduction to the whole chapter, not just to section 14.1.

That kind of co-operation which is based on division of labor creates its classical shape for itself in the manufactories.

356:1 Die auf Teilung der Arbeit beruhende Kooperation schafft sich ihre klassische Gestalt in der Manufaktur.

The above translation “that kind of co-operation which” leans on the French [megaII/7]288:1 “cette espèce de coopération qui” which is clearer and more explicit than the German. Moore-Aveling

[megaII/9]290:2 has “that co-operation which,” and Fowkes has “that form of co-operation which.” Instead of “classical shape” (here and Fowkes), Moore-Aveling has “typical form.”

Although typical for capitalism at that time, we will see later that this is a very limited form, therefore the translation given here avoided the word “typical.”

⇑ Marx’s figure of speech “creates for itself” treats co-operation as something active. Marx possibly meant that very literally. One of the main results of chapter Thirteen was that division of labor is *real* in the critical-realist definition that something is real if it is causally efficacious. The first sentence also implies that division of labor is one of several possible forms of co-operation. In *Poverty of Philosophy*, chapter 2, Sect. 2 [mecw6]178–190, Marx refutes Proudhon’s thesis that division of labor simply came out of the idea of “dividing the labor,” and argues that it must be explained by the relations of production.

Term Paper Topic 963 *Term Paper about chapter 2, Sect. 2 of Marx’s Poverty of Philosophy, [mecw6]178–190*

It prevails as the characteristic form of the capitalist process of production throughout the period of manufactories properly so called. That period, roughly speaking, extends from the middle of the 16th to the last third of the 18th century.

Als charakteristische Form des kapitalistischen Produktionsprozesses herrscht sie vor während der eigentlichen Manufakturperiode, die, rauh angeschlagen, von Mitte des 16. Jahrhunderts bis zum letzten Drittel des achtzehnten währt.

14. Division of Labor and Manufactories

↓ The next brief paragraph repeats the claim already indicated in the title of this section, that the division of labor in the manufactories has a twofold origin:

Manufactories arise in two ways:

356:2 Die Manufaktur entspringt auf doppelte Weise.

The next two paragraphs describe these two development paths one by one.

(1) By the assemblage, in one workshop under the control of a single capitalist, of laborers belonging to independent handicrafts of different kinds, through whose hands a given article must pass on its way to completion. A carriage, for example, was formerly the product of the labor of a great number of independent artificers, such as wheelwrights, harness-makers, tailors, locksmiths, upholsterers, turners, fringe-makers, glaziers, painters, polishers, gilders, etc. In a manufactory of carriages, all these different artificers are assembled in one building where they work into one another's hands.

356:3/o Entweder werden Arbeiter von verschiedenartigen, selbständigen Handwerkern, durch deren Hände ein Produkt bis zu seiner letzten Reife laufen muß, in eine Werkstatt unter dem Kommando desselben Kapitalisten vereinigt. Z.B. eine Kutsche war das Gesamtprodukt der Arbeiten einer großen Anzahl unabhängiger Handwerker, wie Stellmacher, Sattler, Schneider, Schlosser, Gürtler, Drechsler, Posamentierer, Glaser, Maler, Lackierer, Vergolder usw. Die Kutschenmanufaktur vereinigt alle diese verschiednen Handwerker in ein Arbeitshaus, wo sie einander gleichzeitig in die Hand arbeiten.

↓ Time succession becomes spacial coexistence:

It is true that a carriage cannot be gilt before it has been made. But if a number of carriages are being made simultaneously, some may be in the hands of the gilders while others are going through an earlier process.

Man kann eine Kutsche zwar nicht vergolden, bevor sie gemacht ist. Werden aber viele Kutschen gleichzeitig gemacht, so kann ein Teil beständig vergoldet werden, während ein anderer Teil eine frühere Phase des Produktionsprozesses durchläuft.

↓ Now the changes in the producers induced by this production arrangement (negation):

So far, we are still in the domain of simple co-operation, which finds its materials ready to hand, be it humans or objects.

Soweit stehn wir noch auf dem Boden der einfachen Kooperation, die ihr Material an Menschen und Dingen vorfindet.

Question 964 Give examples of human materials of co-operation. Give examples of objective materials of co-operation.

↓ But now we are witnessing the causal effects of the division of labor:

But very soon an essential change occurs. The tailor, the locksmith, and the other artificers, being now exclusively occupied in carriage-making, each gradually loses, through want of practice, the ability to carry on, to its full extent, his old handicraft. But, on the other hand, his activity now confined in one groove, assumes the form best adapted to the narrowed sphere of action.

Indes tritt sehr bald eine wesentliche Veränderung ein. Der Schneider, Schlosser, Gürtler usw., der nur im Kutschenmachen beschäftigt ist, verliert nach und nach mit der Gewohnheit auch die Fähigkeit, sein altes Handwerk in seiner ganzen Ausdehnung zu betreiben. Andererseits erhält sein vereinseitigtes Tun jetzt die zweckmäßigste Form für die verengte Wirkungssphäre.

↓ From combination of many different crafts to the division of one process (negation of negation):

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At first, the carriage manufactury took the form of a combination of various independent handicrafts. By degrees, it becomes the splitting up of carriage-making into its various detail processes, each of which crystallizes into the exclusive function of a particular workman, the manufacture, as a whole, being carried on by the combined partial laborers as a group.

The craftsman's loss of skills to perform the entire range of his craft is compared here to a loss of fluidity, a crystallization. His skills have become so narrow that he can no longer make a living working independently. He is now locked in as a non-autonomous component of a group of workers. This group is now the subject performing the labor process, not he as an individual.

In the same way, cloth manufacture, as also a whole series of other manufactures, arose by combining different handicrafts together under the control of a single capitalist.²⁶

The footnote shows a more recent example, from well after the period of manufactories: social division of labor between independent silk artisans just before they were gathered into the same factory by a capitalist:

²⁶ To give a more modern instance: The silk spinning and weaving of Lyon and Nîmes "est toute patriarcale; elle emploie beaucoup de femmes et d'enfants, mais sans les épuiser ni les corrompre; elle les laisse dans leur belles valises de la Drôme, du Var, de l'Isère, de Vaucluse, pour y élever des vers et dévider leurs cocons; jamais elle n'entre dans une véritable fabrique. Pour être aussi bien observe . . . le principe de la division du travail s'y revêt d'un caractère spécial. Il y a bien des dévideuses, des moulineurs, des teinturiers, des encolleurs, puis des tisserands; mais ils ne sont pas réunis dans un même établissement, ne dépendent pas d'un même maître, tous ils sont indépendants" (A. Blanqui: "Cours, d'Econ. Industrielle." Recueilli par A. Blaise. Paris, 1838–39, p. 79.) Since Blanqui wrote this, the various independent laborers have, to some extent, been united in factories. {And since Marx wrote the above, the power-loom has invaded these factories, and is now 1886 rapidly superseding the hand-loom. (Added in the 4th German edition. The Krefeld silk industry also has its tale to tell about this subject.) F. E.}

Ursprünglich erschien die Kutschenmanufaktur als eine Kombination selbständiger Handwerke. Sie wird allmählich Teilung der Kutschenproduktion in ihre verschiedenen Sonderoperationen, wovon jede einzelne zur ausschließlichen Funktion eines Arbeiters kristallisiert und deren Gesamtheit vom Verein dieser Teilarbeiter verrichtet wird.

Ebenso entstand die Tuchmanufaktur und eine ganze Reihe anderer Manufakturen aus der Kombination verschiedener Handwerke unter Kommando desselben Kapitals.²⁶

²⁶ Um ein mehr modernes Beispiel dieser Bildungsart der Manufaktur anzuführen, folgendes Zitat. Die Seidenspinnerei und Weberei von Lyon und Nîmes „ist ganz patriarchalisch; sie beschäftigt viele Frauen und Kinder, aber ohne sie zu übermüden oder zugrunde zu richten; sie läßt sie in ihren schönen Tälern der Drôme, des Var, der Isère und von Vaucluse, um dort Seidenraupen zu züchten, und ihre Kokons abzuwickeln; sie wird niemals zu einem regelrechten Fabrikbetrieb. Um trotzdem in so hohen Maße angewandt zu werden . . . nimmt hier das Prinzip der Arbeitsteilung eine besondere Eigenart an. Es gibt zwar Hasplerinnen, Seidenzwirner, Färber, Kettenschlichter, ferner Weber; aber sie sind nicht in derselben Werkstatt vereinigt, nicht von demselben Meister abhängig; alle sind sie unabhängig.“ (A. Blanqui, „Cours d'Econ. Industrielle“, Recueilli par A. Blaise, Paris 1838–1839, p. 79.) Seit Blanqui dies schrieb, sind die verschiedenen unabhängigen Arbeiter zum Teil in Fabriken vereinigt worden. {Zur 4. Aufl.—Und seit Marx obiges schrieb, hat der Kraftstuhl sich in diesen Fabriken eingebürgert und verdrängt rasch den Handwebstuhl. Die Krefelder Seidenindustrie weiß ebenfalls ein Lied davon zu singen.—F. E.}

Second development process: a given labor process is split up.

(2) Manufactories also arise in a way

357:1/o Die Manufaktur entspringt aber

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exactly the reverse of this, namely, by one capitalist employing simultaneously in one workshop a number of artificers, who all do the same or similar kind of work, such as making paper, type, or needles. This is co-operation in its simplest form. Each of these artificers (with the help, perhaps, of one or two apprentices), makes the entire commodity, and he consequently performs in succession all the operations necessary for its production. He still works in his old handicraft-like way.

auch auf entgegengesetztem Wege. Es werden viele Handwerker, die dasselbe oder Gleichartige tun, z.B. Papier oder Typen oder Nadeln machen, von demselben Kapital gleichzeitig in derselben Werkstatt beschäftigt. Es ist dies Kooperation in der einfachsten Form. Jeder dieser Handwerker (vielleicht mit einem oder zwei Gesellen) macht die ganze Ware und vollbringt also die verschiedenen, zu ihrer Herstellung erforderlichen Operationen der Reihe nach. Er arbeitet in seiner alten handwerksmäßigen Weise fort.

↓ The *changes* from this original state (negation) are not planned but are driven by everyday practical emergencies which justify breaking the old patterns:

But very soon external circumstances cause a different use to be made of the concentration of the workmen on one spot, and of the simultaneousness of their work. An increased quantity of the article has perhaps to be delivered within a given time. The work is therefore re-distributed. Instead of each man being allowed to perform all the various operations in succession, these operations are changed into disconnected, isolated ones, carried on side by side; each is assigned to a different artificer, and the whole of them together are performed simultaneously by the co-operating workmen. This accidental repartition gets repeated, develops advantages of its own, and gradually ossifies into a systematic division of labor.

Indes veranlassen bald äußere Umstände, die Konzentration der Arbeiter in demselben Raum und die Gleichzeitigkeit ihrer Arbeiten anders zu vernutzen. Es soll z.B. ein größeres Quantum fertiger Ware in einer bestimmten Zeitfrist geliefert werden. Die Arbeit wird daher verteilt. Statt die verschiedenen Operationen von demselben Handwerker in einer zeitlichen Reihenfolge verrichten zu lassen, werden sie voneinander losgelöst, isoliert, räumlich nebeneinander gestellt, jede derselben einem andren Handwerker zugewiesen und alle zusammen von den Kooperierenden gleichzeitig ausgeführt. Diese zufällige Verteilung wiederholt sich, zeigt ihre eigentümlichen Vorteile und verknöchert nach und nach zur systematischen Teilung der Arbeit.

↑ Here Marx uses the metaphor “ossification” instead of ‘crystallization.’ ↓ This, too, leads to new state which is again the negation of the negation:

The commodity, from being the individual product of an independent artificer, becomes the social product of a union of artificers, each of whom performs one, and only one, of the constituent partial operations.

Aus dem individuellen Produkt eines selbständigen Handwerkers, der vielerlei tut, verwandelt sich die Ware in das gesellschaftliche Produkt eines Vereins von Handwerkern, von denen jeder fortwährend nur eine und dieselbe Teiloperation verrichtet.

↓ Paper manufactories as example:

The same operations which, in the case of a papermaker belonging to a German Guild, merged one into the other as the successive acts of one artificer, became in the Dutch paper manufacture so many partial opera-

Dieselben Operationen, die ineinander flossen als sukzessive Verrichtungen des deutschen zünftigen Papiermachers, verselbständigten sich in der holländischen Papiermanufaktur zu nebeneinander laufenden

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tions carried on side by side by numerous co-operating laborers.

⇓ Example of needle manufactories:

The needlemaker of the Nuremberg Guild was the cornerstone on which the English needle manufactories were raised. But while in Nuremberg that single artificer performed a series of perhaps 20 operations one after another, in England it was not long before there were 20 needlemakers side by side, each performing one alone of those 20 operations, and in consequence of further experience, each of those 20 operations was again split up, isolated, and made the exclusive function of a separate workman.

Teiloperationen vieler kooperierenden Arbeiter.

Der zünftige Nadler von Nürnberg bildet das Grundelement der englischen Nadelmanufaktur. Während aber jener eine Nadler eine Reihe von vielleicht 20 Operationen nacheinander durchlief, verrichteten hier bald 20 Nadler nebeneinander, jeder nur eine der 20 Operationen, die infolge von Erfahrungen noch viel weiter gespaltet, isoliert und zu ausschließlichen Funktionen einzelner Arbeiter verselbständigt wurden.

Two different pathways leading to the same result. ⇓ The summary points out the inner connection between these two development paths:

The mode in which manufactories arise, their growth out of handicrafts, is therefore two-fold. On the one hand, they arise from the union of various independent handicrafts, which become stripped of their independence and specialized to such an extent as to be reduced to mere supplementary fractional processes in the production of one particular commodity. On the other hand, they arise from the co-operation of artificers of one handicraft; they split up that particular handicraft into its various detail operations, isolating, and making these operations independent of one another up to the point where each becomes the exclusive function of a particular laborer.

358:1 Die Ursprungsweise der Manufaktur, ihre Herausbildung aus dem Handwerk ist also zwieschlächtig. Einerseits geht sie von der Kombination verschiedenartiger, selbständiger Handwerke aus, die bis zu dem Punkt verunselbständigt und vereinseitigt werden, wo sie nur noch einander ergänzende Teiloperationen im Produktionsprozeß einer und derselben Ware bilden. Andererseits geht sie von der Kooperation gleichartiger Handwerker aus, zersetzt dasselbe individuelle Handwerk in seine verschiedenen besondern Operationen und isoliert und verselbständigt diese bis zu dem Punkt, wo jede derselben zur ausschließlichen Funktion eines besondern Arbeiters wird.

Production processes which have been independent are made dependent, or phases in a production process which have been dependent are made independent. In fact, dependence and independence always occur together, what changes is what is the main part of the contradiction. Or say, which leg of the contradiction is primary. In the social division of labor of silk weavers, the independence is primary, and in the manufactory, the dependence is primary.

On the one hand, therefore, manufactories either introduce division of labor into a process of production, or further develop that division; on the other hand, they combine handicrafts that were formerly separate.

Einerseits führt daher die Manufaktur Teilung der Arbeit in einen Produktionsprozeß ein oder entwickelt sie weiter, andererseits kombiniert sie früher geschiedne Handwerke.

⇑ Two very opposite pathways, either division or combination. Later in this chapter, when discussing the division of labor in society, Marx finds a similar duality, see .

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But whatever may have been its particular starting-point, its final form is the same—a productive mechanism whose parts are human beings.

Welches aber immer ihr besondrer Ausgangspunkt, ihre Schlußgestalt ist dieselbe—ein Produktionsmechanismus, dessen Organe Menschen sind.

↑ The result of both development paths is the same: human beings are incorporated into a “mechanism of production” consistig of people. This composite production organism will be discussed in .

Question 965 *By which two different routes can division of labor develop? Does the character of the production process depend on which development route was taken?*

Question 966 *What is the role of the capitalist in the development of the division of labor, and to what extent is this development driven by the inner dialectic of a co-operative labor-process?*

The next paragraph makes two remarks important for a critical evaluation of the division of labor as implemented in the manufactories. (And the reader should be aware what kind of division of labor is being investigated here—in the first sentence of the first paragraph of this section Marx called it its “classical shape”. It is strictly the division of labor on the basis of the handicraft mode of production, which demands that each partial laborer becomes the organ of a detail function, i.e., the organ performing this detail function only.)

For a proper understanding of the division of labor in manufactories, it is essential that the following points be firmly grasped.

358:2/o Zum richtigen Verständnis der Teilung der Arbeit in der Manufaktur ist es wesentlich, folgende Punkte festzuhalten:

↓ First remark: Division of labor decomposes the production process into smaller component parts. Therefore, the development of the division of labor is driven by the general dialectic between dependence and independence: division of labor either arises from making independent labor processes dependent, or making dependent labor processes independent. The general character of this discussion should not lull the reader into overlooking the particularities here, which eventually lead to the supersession of this mode of production by big machinery: Each of these partial labors must still be carried out in a handicraft manner.

First, the analysis of a production process into its distinct phases coincides, here, strictly with the decomposition of a handicraft into its successive manual operations. Whether composite or simple, each operation has to be done by hand, retains the character of a handicraft, and is therefore dependent on the strength, skill, quickness, and sureness, of the individual workman in handling his tools. The handicraft continues to be the basis.

Zunächst fällt die Analyse des Produktionsprozesses in seine besondren Phasen hier ganz und gar zusammen mit der Zersetzung einer handwerksmäßigen Tätigkeit in ihre verschiedenen Teiloperationen. Zusammengesetzt oder einfach, die Verrichtung bleibt handwerksmäßig und daher abhängig von Kraft, Geschick, Schnelle, Sicherheit des Einzelarbeiters in Handhabung seines Instruments. Das Handwerk bleibt die Basis.

↓ This prevents a “truly scientific” analysis (i.e., a decomposition of the production process into its *real* components). As elsewhere in this volume, Marx uses here epistemological categories for actual (ontological) social processes:

This narrow technical basis precludes a truly scientific analysis of any definite process of industrial production, since it is still a condi-

Diese enge technische Basis schließt wirklich wissenschaftliche Analyse des Produktionsprozesses aus, da jeder Teilpro-

tion that each detail process gone through by the product must be capable of being done by hand and of forming, in its way, a separate handicraft.

zeß, den das Produkt durchmacht, als handwerksmäßige Teilarbeit ausführbar sein muß.

This constraint not only cripples the production process, it also cripples the worker:

It is just because handicraft skill continues, in this way, to be the foundation of the process of production, that each workman becomes exclusively assigned to a partial function, and that for the rest of his life, his labor-power is turned into the organ of this detail function.

Eben weil das handwerksmäßige Geschick so die Grundlage des Produktionsprozesses bleibt, wird jeder Arbeiter ausschließlich einer Teilfunktion angeeignet und seine Arbeitskraft in das lebenslängliche Organ dieser Teilfunktion verwandelt.

↓ Second remark: Some of the advantages of this division of labor are advantages of co-operation in general, not specific to this kind of co-operation.

Secondly, this division of labor is a particular sort of co-operation, and many of its advantages spring from the general character of co-operation, and not from this particular form of it.

Endlich ist diese Teilung der Arbeit eine besondere Art der Kooperation, und manche ihrer Vorteile entspringen aus dem allgemeinen Wesen, nicht aus dieser besondern Form der Kooperation.

Translation error in the original Moore-Aveling translation of the last sentence, as reproduced in [megaII/9]293:1: what should be “advantages” was translated as

“disadvantages.” The German says “advantages” (*Vorteile*) not only in the fourth edition but also in the first edition [megaII/5]274:2/o, second edition, [megaII/6]334:1/o,

and third edition [megaII/8]335:2. Also the French edition [megaII/7]290:3 says “advantages.”

14.2. The Specialized Worker and His Tools

After discussing the origins of manufacture, Marx looks at its simple elements.

↓ The first “element” Marx looks at is the individual worker. The mechanized labor process changes the worker; the worker develops highly specialized skills by doing one and the same limited task over and over again. Greater productivity goes therefore at the expense of a balanced development of the worker.

If we now go more into detail, it is, in the first place, clear that a laborer who all his life performs one and the same simple operation, converts his whole body into the automatic, specialized implement of that operation. Consequently, he takes less time in doing it, than the artificer who performs a whole series of operations in succession.

359:1 Gehn wir nun näher auf das einzelne ein, so ist zunächst klar, daß ein Arbeiter, der lebenslang eine und dieselbe einfache Operation verrichtet, seinen ganzen Körper in ihr automatisch einseitiges Organ verwandelt und daher weniger Zeit dazu verbraucht als der Handwerker, der eine ganze Reihe von Operationen abwechselnd ausführt.

↓ As in , the subject performing the labor process is the combined worker:

But the combined laborer, who constitutes the living mechanism of manufacture, is made up solely of such specialised detail laborers. Hence, in comparison with the independent handicraft, more is produced in a

Der kombinierte Gesamtarbeiter, der den lebendigen Mechanismus der Manufaktur bildet, besteht aber aus lauter solchen einseitigen Teilarbeitern. Im Vergleich zum selbständigen Handwerk wird daher mehr in we-

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given time, or the productive power of labor is increased.²⁷

²⁷ The more any manufacture of much variety shall be distributed and assigned to different artists, the same must needs be better done and with greater expedition, with less loss of time and labor." ("The Advantages of the East India Trade," Lond., 1720, p. 71.)

⇓ This simplification and speedup of the individual processes also leads to their perfection (negation of negation):

Moreover, when once this fractional work is established as the exclusive function of one person, the methods it employs become perfected. The workman's continued repetition of the same simple act, and the concentration of his attention on it, teach him by experience how to attain the desired effect with the minimum of exertion. But since at any given time there are always several generations of laborers living together, and working together in the same manufactories, the technical skill, the tricks of the trade thus acquired, become established, and are accumulated and handed down.²⁸

²⁸ "Easy labor is transmitted skill." (Th. Hodgskin, "Popular Political Economy," p. 48.)

↑ The theme that workers harbor skills and pass these skills from one to the next also appears several times in this volume, for instance in 575:1–576:1.

⇓ Comparison of division of labor in the manufactories with division of labor in a society. The extreme division of labor found in the manufactories corresponds to and deepens the division of labor in societies.

Manufactories, in fact, produce the skill of the detail laborer, by reproducing, and systematically driving to an extreme within the workshop, the naturally developed differentiation of trades which they found ready to hand in society at large.

The capitalist's command over the laborers is also duplicated by the efforts in earlier societies to fix the division of labor (caste and guild system).

On the other hand, the conversion of fractional work into the life-calling of one man, corresponds to the tendency shown by earlier societies, to make trades hereditary; either to petrify them into castes, or whenever definite historical conditions beget in the individual a tendency to vary in a manner in-

niger Zeit produziert oder die Produktivkraft der Arbeiter gesteigert.²⁷

²⁷ „Je mehr eine Arbeit von großer Mannigfaltigkeit gegliedert und verschiedenen Teilarbeitern zugewiesen wird, um so mehr muß sie notwendigerweise besser und schneller ausgeführt werden, mit weniger Verlust an Zeit und Arbeit.“ („The Advantages of the East India Trade“, Lond. 1720, p. 71.)

Auch vervollkommnet sich die Methode der Teilarbeit, nachdem sie zur ausschließlichen Funktion einer Person verselbstständigt ist. Die stete Wiederholung desselben beschränkten Tuns und die Konzentration der Aufmerksamkeit auf dieses Beschränkte lehren erfahrungsmäßig den bezweckten Nutzeffekt mit geringstem Kraftaufwand erreichen. Da aber immer verschiedene Arbeitergenerationen gleichzeitig zusammenleben und in denselben Manufakturen zusammenwirken, befestigen, häufen und übertragen sich bald die so gewonnenen technischen Kunstgriffe.²⁸

²⁸ „Leicht von der Hand gehende Arbeit ist überlieferte Geschicklichkeit.“ (Th. Hodgskin, Popular Political Economy, p. 48.)

359:2–360:1 Die Manufaktur produziert in der Tat die Virtuosität des Detailarbeiters, indem sie die naturwüchsige Sonderung der Gewerbe, die sie in der Gesellschaft vorfand, im Innern der Werkstatt reproduziert und systematisch zu Extrem treibt.

Andrerseits entspricht ihre Verwandlung der Teilarbeit in den Lebensberuf eines Menschen dem Trieb früherer Gesellschaften, die Gewerbe erblich zu machen, sie in Kasten zu versteinern oder in Zünfte zu verknöchern, falls bestimmte historische Bedingungen dem Kastenwesen widerspre-

compatible with the nature of castes, to ossify them into guilds.

chende Variabilität des Individuums erzeugen.

Both spring from the same “natural law.” Marx also sees analogies to the particularization of plants and animals into species and subspecies.

Castes and guilds arise from the action of the same natural law, that regulates the differentiation of plants and animals into species and varieties, except that, when a certain degree of development has been reached, the heredity of castes and the exclusiveness of guilds are ordained as a law of society.²⁹

Kasten und Zünfte entspringen aus demselben Naturgesetz, welches die Sonderung von Pflanzen und Tieren in Arten und Unterarten regelt, nur daß auf einem gewissen Entwicklungsgrad die Erblichkeit der Kasten oder die Ausschließlichkeit der Zünfte als gesellschaftliches Gesetz dekretiert wird.²⁹

↓ Footnote: Already Diodorus argued for social restrictions to preventing people from doing too many different things (and he apparently also thought that popular assemblies are a waste of time):

²⁹ “The arts also have ... in Egypt reached the requisite degree of perfection. For it is the only country where artificers may not in any way meddle with the affairs of another class of citizens, but must follow that calling alone which by law is hereditary in their clan ... In other countries it is found that tradesmen divide their attention between too many objects. At one time they try agriculture, at another they take to commerce, at another they busy themselves with two or three occupations at once. In free countries, they mostly frequent the assemblies of the people ... In Egypt, on the contrary, every artificer is severely punished if he meddles with affairs of State, or carries on several trades at once. Thus there is nothing to disturb their application to their calling ... Moreover, since they inherit from their forefathers numerous rules, they are eager to discover fresh advantages” (Diodorus Siculus: *Bibl. Hist. I. I. c. 74.*)

²⁹ „Auch die Künste sind ... in Ägypten zu dem gehörigen Grad von Vollkommenheit gediehn. Denn in diesem Lande allein dürfen die Handwerker durchaus nicht in die Geschäfte einer andren Bürgerklasse eingreifen, sondern bloß den nach dem Gesetz ihrem Stamme erblich zugehörigen Beruf treiben ... Bei andren Völkern findet man, daß die Gewerbsleute ihre Aufmerksamkeit auf zu viele Gegenstände verteilen ... Bald versuchen sie es mit dem Landbau, bald lassen sie sich in Handelsgeschäfte ein, bald befassen sie sich mit zwei oder drei Künsten zugleich. In Freistaaten laufen sie meist in die Volksversammlungen ... In Ägypten dagegen verfällt jeder Handwerker in schwere Strafen, wenn er sich in Staatsgeschäfte mischt oder mehrere Künste zugleich treibt. So kann nichts ihren Berufsfleiß stören ... Zudem wie sie von ihren Vorfahren viele Regeln haben, sind sie eifrig darauf bedacht, noch neue Vorteile aufzufinden.“ (Diodorus Siculus: „Historische Bibliothek“, I. I. c. 74.)

So far the footnote. The main text gives a striking example of the importance of skills, which make extraordinary products possible even with the most primitive tools:

“The muslins of Dakka in fineness, the calicoes and other piece goods of Coromandel in brilliant and durable colours, have never been surpassed. Yet they are produced without capital, machinery, division of labor, or any of those means which give such facilities to the manufacturing interest of Europe. The weaver is merely a detached individual, working a web when ordered of a customer, and with a loom of the rudest construction, consisting sometimes of a few branches or bars of wood,

„Die Musline von Dakka sind an Feinheit, die Kattune und andre Zeuge von Koromandel an Pracht und Dauerhaftigkeit der Farben niemals übertroffen worden. Und dennoch werden sie produziert ohne Kapital, Maschinerie, Teilung der Arbeit oder irgendeins der andren Mittel, die der Fabrikation in Europa so viele Vorteile bieten. Der Weber ist ein einzeltes Individuum, der das Gewebe auf Bestellung eines Kunden verfertigt und mit einem Webstuhl von der einfachsten Konstruk-

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put roughly together. There is even no expedient for rolling up the warp; the loom must therefore be kept stretched to its full length, and becomes so inconveniently large, that it cannot be contained within the hut of the manufacturer, who is therefore compelled to ply his trade in the open air, where it is interrupted by every vicissitude of the weather.”³⁰

³⁰ “Historical and descriptive account of Brit. India, etc.,” by Hugh Murray and James Wilson, etc., Edinburgh 1832, v. II., p. 449. The Indian loom is upright, i.e., the warp is stretched vertically.

⇓ However the Hindu’s specialization is nothing compared with the specialization forced on the manufacturing laborer:

It is only the special skill accumulated from generation to generation, and transmitted from father to son, that gives to the Hindu, as it does to the spider, this proficiency. And yet the work of such a Hindu weaver is very complicated, compared with the majority of laborers in the manufactories.

⇓ Finally: how does division of labor increase productivity? Productivity increases due to increased continuity of the labor process (fewer “gaps”) may either come from greater intensity or from less unproductive use of the labor-power.

An artificer, who performs one after another the various fractional operations in the production of a finished article, must at one time change his place, at another his tools. The transition from one operation to another interrupts the flow of his labor, and creates, so to say, gaps in his working-day. These gaps close up so soon as he is tied to one and the same operation all day long; they vanish in proportion as the changes in his work diminish. The resulting increased productive power is owing either to an increased expenditure of labor-power in a given time, i.e., to increased intensity of labor, or to a decrease in the amount of labor-power unproductively consumed. The extra expenditure of power, demanded by every transition from rest to motion, is made up for by prolonging the duration of the normal velocity when once acquired.

tion, manchmal nur bestehend aus hölzernen, roh zusammengefügt Stangen. Er besitzt nicht einmal einen Apparat zum Aufziehen der Kette, der Webstuhl muß daher in seiner ganzen Länge ausgestreckt bleiben und wird so unförmlich und weit, daß er keinen Raum findet in der Hütte des Produzenten, der seine Arbeit daher in freier Luft verrichten muß, wo sie durch jede Wetteränderung unterbrochen wird.“³⁰

³⁰ „Historical and descriptive Account of Brit. India etc.“ By Hugh Murray, James Wilson etc., Edinburgh 1832, v. II, p. 449, 450. Der indische Webstuhl ist hochschäftig, d.h., die Kette ist vertikal aufgespannt.

360:2 Es ist nur das von Generation auf Generation gehäufte und von Vater auf Sohn vererbte Sondergeschick, das dem Hindu wie der Spinne diese Virtuosität verleiht. Und dennoch verrichtet ein solcher indischer Weber sehr komplizierte Arbeit, verglichen mit der Mehrzahl der Manufakturarbeiter.

360:3/o Ein Handwerker, der die verschiedenen Teilprozesse in der Produktion eines Machwerks nacheinander ausführt, muß bald den Platz, bald die Instrumente wechseln. Der Übergang von einer Operation zur andren unterbricht den Fluß seiner Arbeit und bildet gewissermaßen Poren in seinem Arbeitstag. Diese Poren verdichten sich, sobald er den ganzen Tag eine und dieselbe Operation kontinuierlich verrichtet, oder sie verschwinden in dem Maße, sie der Wechsel seiner Operation abnimmt. Die gesteigerte Produktivität ist hier entweder der zunehmenden Ausgabe von Arbeitskraft in einem gegebenen Zeitraum geschuldet, also wachsender Intensität der Arbeit oder einer Abnahme des unproduktiven Verzehrs von Arbeitskraft. Der Überschuß von Kraftaufwand nämlich, den jeder Übergang aus der Ruhe in die Bewegung erheischt, kompen-

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siert sich bei längerer Fortdauer der einmal erreichten Normalgeschwindigkeit.

This monotoneity is good for productivity but it destroys the vital spirits (Lebensgeister) of the laborer.

On the other hand, constant labor of one uniform kind disturbs the intensity and flow of a man's animal spirits, which find recreation and delight in mere change of activity.

Andrerseits zerstört die Kontinuität gleichförmiger Arbeit die Spann- und Schwungkraft der Lebensgeister, die im Wechsel der Tätigkeit selbst ihre Erholung und ihren Reiz finden.

Question 967 *If someone does the same thing all the time: is this greater efficiency or greater intensity?*

↑ This concludes the discussion of the worker. ↓ Now Marx looks at the tools.

The productiveness of labor depends not only on the proficiency of the workman, but on the perfection of his tools. Tools of the same kind, such as knives, drills, gimlets, hammers, etc., may be employed in different processes; and the same tool may serve various purposes in a single process. But so soon as the different operations of a labor-process are disconnected the one from the other, and each fractional operation acquires in the hands of the detail laborer a suitable and peculiar form, alterations become necessary in the implements that previously served more than one purpose.

361:1/o Die Produktivität der Arbeit hängt nicht nur von der Virtuosität des Arbeiters ab, sondern auch von der Vollkommenheit seiner Werkzeuge. Werkzeuge derselben Art, wie Schneide-, Bohr-, Stoß-, Schlaginstrumente usw., werden in verschiedenen Arbeitsprozessen gebraucht, und in demselben Arbeitsprozeß dient dasselbe Instrument zu verschiedenen Verrichtungen. Sobald jedoch die verschiedenen Operationen eines Arbeitsprozesses voneinander losgelöst sind und jede Teiloperation in der Hand des Teilarbeiters eine möglichst entsprechende und daher ausschließliche Form gewinnt, werden Veränderungen der vorher zu verschiedenen Zwecken dienenden Werkzeuge notwendig.

How do the tools develop? Marx describes here a spontaneous development process, he would probably call it *naturwüchsig*. The traditional shape of the tools creates difficulties which are overcome by more refined shapes.

The direction taken by this change is determined by the difficulties experienced in consequence of the unchanged form of the implement.

Die Richtung ihres Formwechsels ergibt sich aus der Erfahrung der besondern Schwierigkeiten, welche die unveränderte Form in den Weg legt.

Tools which were previously used for several different purposes are now only used for one purpose. This changes their shape: they are improved and simplified, and also multiplied:

Manufacture is characterised by the differentiation of the instruments of labor, a differentiation whereby implements of a given sort acquire fixed shapes, adapted to each particular application, and by the specialisation of those instruments, giving to each special implement its full play only in the hands of a specific detail laborer. In Birm-

Die Differenzierung der Arbeitsinstrumente, wodurch Instrumente derselben Art besondere feste Formen für jede besondere Nutzanwendung erhalten, und ihre Spezialisierung, wodurch jedes solches Sonderinstrument nur in der Hand spezifischer Teilarbeiter in seinem ganzen Umfang wirkt, charakterisieren die Manufaktur. Zu Birming-

14. Division of Labor and Manufactories

ingham alone 500 varieties of hammers are produced, and not only is each adapted to one particular process, but several varieties often serve exclusively for the different operations in one and the same process. The manufacturing period simplifies, improves, and multiplies the implements of labor, by adapting them to the exclusively special functions of each detail laborer.³¹

Comparison with Darwinian selection:

³¹ Darwin in his epoch-making work on the origin of species, remarks, with reference to the natural organs of plants and animals: "So long as one and the same organ has different kinds of work to perform, a ground for its changeability may possibly be found in this, that natural selection preserves or suppresses each small variation of form less carefully than if that organ were destined for one special purpose alone. Thus, knives that are adapted to cut all sorts of things, may, on the whole, be of one shape; but an implement destined to be used exclusively in one way must have a different shape for every different use."

↓ This creates the material preconditions of machinery:

It thus creates at the same time one of the material conditions for the existence of machinery, which consists of a combination of simple instruments.

↓ Transition to next section:

The detail laborer and his implements are the simplest elements of manufacture. Let us now turn to its aspect as a whole.

ham allein produziert man etwa 500 Varietäten von Hämmern, wovon jeder nicht nur für einen besondern Produktionsprozeß, sondern eine Anzahl Varietäten oft nur für verschiedene Operationen in demselben Prozeß dient. Die Manufakturperiode vereinfacht, verbessert und vermännigfacht die Arbeitswerkzeuge durch deren Anpassung an die ausschließlichen Sonderfunktionen der Teilarbeiter.³¹

³¹ Darwin bemerkt in seinem epochemachenden Werk „Über die Entstehung der Arten“ mit Bezug auf die natürlichen Organe der Pflanzen und Tiere: „Solange ein und dasselbe Organ verschiedene Arbeiten zu verrichten hat, läßt sich ein Grund für seine Veränderlichkeit vielleicht darin finden, daß natürliche Züchtung jede kleine Abweichung der Form weniger sorgfältig erhält oder unterdrückt, als wenn dasselbe Organ nur zu einem besondern Zwecke allein bestimmt wäre. So mögen Messer, welche allerlei Dinge zu schneiden bestimmt sind, im ganzen so ziemlich von einerlei Form sein, während ein nur zu einerlei Gebrauch bestimmtes Werkzeug für jeden andren Gebrauch auch eine andre Form haben muß.“

Sie schafft damit zugleich eine der materiellen Bedingungen der Maschinerie, die aus einer Kombination einfacher Instrumente besteht.

362:1 Der Detailarbeiter und sein Instrument bilden die einfachen Elemente der Manufaktur. Wenden wir uns jetzt zu ihrer Gesamtgestalt.

14.3. The Two Basic Forms of Manufacture—Heterogeneous and Organic

After having discussed the elements of manufacture, Marx looks now at manufacture as a whole, as a totality of interconnected elements.

14.3.a. [Two Forms of Manufacture]

Manufacture has two basic forms, according to the nature of the product: either the same object goes through many stages, or the final object is an assembly of many different parts.

14.3. Heterogeneous and Organic Manufacture

This is the same duality in the phenomenology of fully developed manufactories that was already observed in the history of the origin of manufactories.

The organisation of manufacture has two fundamental forms which, in spite of occasional blending, are essentially different in kind, and, moreover, play very distinct parts in the subsequent transformation of manufacture into modern industry carried on by machinery. This double character arises from the nature of the article produced. This article either results from the mere mechanical fitting together of partial products made independently, or owes its completed shape to a series of connected processes and manipulations.

362:2 Die Gliederung der Manufaktur besitzt zwei Grundformen, die trotz gelegentlicher Verschlingung zwei wesentlich verschiedene Arten bilden und namentlich auch bei der spätern Verwandlung der Manufaktur in die maschinenartig betriebene, große Industrie eine ganz verschiedene Rolle spielen. Dieser Doppelcharakter entspringt aus der Natur des Machwerks selbst. Es wird entweder gebildet durch bloß mechanische Zusammensetzung selbständiger Teilprodukte oder verdankt seine fertige Gestalt einer Reihenfolge zusammenhängender Prozesse und Manipulationen.

Marx calls the first form heterogeneous manufacture and the second organic manufacture. Marx discusses heterogeneous manufacturing first. He begins with some examples:

A locomotive, for instance, consists of more than 5,000 independent parts. It cannot, however, serve as an example of the first kind of genuine manufacture, for it is a structure produced by modern mechanical industry.

362:3/oo Eine Lokomotive z.B. besteht aus mehr als 5000 selbständigen Teilen. Sie kann jedoch nicht als Beispiel der ersten Art der eigentlichen Manufaktur gelten, weil sie ein Gebilde der großen Industrie ist.

The example of a locomotive shows that this classification of division of labor is not limited to the manufacturing period proper. Second example: watch.

But a watch can; and William Petty used it to illustrate the division of labor in manufacture. Formerly the individual work of a Nuremberg artificer, the watch has been transformed into the social product of an immense number of detail laborers, such as mainspring makers, dial makers, spiral spring makers, jewelled hole makers, ruby lever makers, hand makers, case makers, screw makers, gilders, with numerous subdivisions, such as wheel makers (brass and steel separate), pin makers, movement makers, acheveur de pignon (fixes the wheels on the axles, polishes the facets, etc.), pivot makers, planteur de finissage (puts the wheels and springs in the works), finisseur de barillet (cuts teeth in the wheels, makes the holes of the right size, etc.), escapement makers, cylinder makers for cylinder escapements, escapement wheel makers, balance wheel makers, raquette makers (apparatus for regulating the watch),

Wohl aber die Uhr, an welcher auch William Petty die manufakturmäßige Teilung der Arbeit veranschaulicht. Aus dem individuellen Werk eines Nürnberger Handwerkers verwandelte sich die Uhr in das gesellschaftliche Produkt einer Unzahl von Teilarbeitern, wie Rohwerkmacher, Uhrfedermacher, Zifferblattmacher, Spiralfedermacher, Steinloch- und Rubinhebelmacher, Zeigermacher, Gehäusemacher, Schraubenmacher, Vergolder, mit vielen Unterabteilungen, wie z.B. Räderfabrikant (Messing- und Stahlräder wieder geschieden), Triebmacher, Zeigerwerkmacher, acheveur de pignon (befestigt die Räder auf den Trieben, poliert die facettes usw.), Zapfenmacher, planteur de finissage (setzt verschiedene Räder und Triebe in das Werk), finisseur de barillet (läßt Zähne einschneiden, macht die Löcher zur richtigen Weite, härtet Stellung und Gesperr), Hemmungmacher, bei der Zylinderhemmung wieder Zylindermacher,

14. Division of Labor and Manufactories

the planteur d'échappement (escapement maker proper); then the repasseur de barillet (finishes the box for the spring, etc.), steel polishers, wheel polishers, screw polishers, figure painters, dial enamellers (melt the enamel on the copper), fabricant de pendants (makes the ring by which the case is hung), finisseur de charnière (puts the brass hinge in the cover, etc.), faiseur de secret (puts in the springs that open the case), graveur, ciseleur, polisseur de boîte, etc., etc., and last of all the repasseur, who fits together the whole watch and hands it over in a going state.

Steigradmacher, Unruhemacher, Requettemacher (das Rückwerk, woran die Uhr reguliert wird), planteur d'échappement (eigentliche Hemmungmacher); dann der repasseur de barillet (macht Federhaus und Stellung ganz fertig), Stahlpolierer, Räderpolierer, Schraubenpolierer, Zahlenmaler, Blattmacher (schmilzt das Email auf das Kupfer), fabricant de pendants (macht bloß die Bügel des Gehäuses), finisseur de charnière (steckt den Messingstift in die Mitte des Gehäuses etc.), faiseur de secret (macht die Federn im Gehäuse, die den Deckel aufspringen machen), graveur, ciseleur, polisseur de boîte usw., usw., endlich der repasseur, der die ganze Uhr zusammensetzt und sie gehend abliefert.

After this impressive catalog of the breadth of the division of labor, Marx stresses that vertically, this division of labor is very shallow: the workers co-operate directly only on few places. Therefore there is not much advantage in combining them in the same building. Many parts still produced off-site.

Only a few parts of the watch pass through several hands; and all these membra disjecta come together for the first time in the hand that binds them into one mechanical whole. This external relation between the finished product, and its various and diverse elements makes it, as well in this case as in the case of all similar finished articles, a matter of chance whether the detail laborers are brought together in one workshop or not. The detail operations may further be carried on like so many independent handicrafts, as they are in the Cantons of Vaud and Neuchâtel; while in Geneva there exist large watch manufactories where the detail laborers directly co-operate under the control of a single capitalist. And even in the latter case the dial, the springs, and the case, are seldom made in the factory itself. To carry on the trade as a manufacture, with concentration of workmen, is, in the watch trade, profitable only under exceptional conditions, because competition is greater between the laborers who desire to work at home, and because the splitting up of the work into a number of heterogeneous processes, permits but little use of the instru-

Nur wenige Teile der Uhr laufen durch verschiedene Hände, und alle diese membra disjecta sammeln sich erst in der Hand, die sie schließlich in ein mechanisches Ganzes verbindet. Dies äußerliche Verhältnis des fertigen Produkts zu seinen verschiedenartigen Elementen läßt hier, wie bei ähnlichem Machwerk, die Kombination der Teilarbeiter in derselben Werkstatt zufällig. Die Teilarbeiten können selbst wieder als voneinander unabhängige Handwerke betrieben werden, wie im Kanton Waadt und Neuchâtel, während in Genf z.B. große Uhrenmanufakturen bestehn, d.h. unmittelbare Kooperation der Teilarbeiter unter dem Kommando eines Kapitals stattfindet. Auch im letzteren Fall werden Zifferblatt, Feder und Gehäuse selten in der Manufaktur selbst gefertigt. Der kombinierte manufakturmäßige Betrieb ist hier nur unter ausnahmsweisen Verhältnissen profitlich, weil die Konkurrenz unter den Arbeitern, die zu Hause arbeiten wollen, am größten ist, die Zersplitterung der Produktion in eine Masse heterogener Prozesse wenig Verwendung gemeinschaftlicher Arbeitsmittel erlaubt und der Kapitalist bei der zerstreuten Fabrikation die Auslage

14.3. Heterogeneous and Organic Manufacture

ments of labor in common, and the capitalist, by scattering the work, saves the outlay on workshops, etc.³² Nevertheless the position of this detail laborer who, though he works at home, does so for a capitalist (manufacturer, *éta blisseur*), is very different from that of the independent artificer, who works for his own customers.³³

³² In the year 1854 Geneva produced 80,000 watches, which is not one-fifth of the production in the Canton of Neuchâtel. La Chaux-de-Fond alone, which we may look upon as a huge watch manufactory, produces yearly twice as many as Geneva. From 1850–61 Geneva produced 720,000 watches. See “Report from Geneva on the Watch Trade” in “Reports by H. M.’s Secretaries of Embassy and Legation on the Manufactures, Commerce, etc., No. 6, 1863.” The want of connexion alone, between the processes into which the production of articles that merely consist of parts fitted together is split up, makes it very difficult to convert such a manufacture into a branch of modern industry carried on by machinery; but in the case of a watch there are two other impediments in addition, the minuteness and delicacy of its parts, and its character as an article of luxury. Hence their variety, which is such, that in the best London houses scarcely a dozen watches are made alike in the course of a year. The watch manufactory of Messrs. Vacheron & Constantin, in which machinery has been employed with success, produces at the most three or four different varieties of size and form.

³³ In watchmaking, that classical example of heterogeneous manufacture, we may study with great accuracy the above-mentioned differentiation and specialisation of the instruments of labor caused by the subdivision of handicrafts.

für Arbeitsgebäude usw. erspart.³² Indes ist auch die Stellung dieser Detailarbeiter, die zu Hause, aber für einen Kapitalisten (Fabrikant, *éta blisseur*) arbeiten, ganz und gar verschieden von der des selbständigen Handwerkers, welcher für seine eignen Kunden arbeitet.³³

³² Genf hat im Jahr 1854 80 000 Uhren produziert, noch nicht ein Fünftel der Uhrenproduktion des Kantons Neuchâtel. Chaux-de-Fonds, das man als eine einzige Uhrenmanufaktur betrachten kann, liefert allein jährlich doppelt soviel als Genf. Von 1850–1861 lieferte Genf 720 000 Uhren. Siehe „Report from Geneva on the Watch Trade“ in „Reports by H.M.’s Secretaries of Embassy and Legation on the Manufactures, Commerce etc.“, Nr. 6, 1863. Wenn die Zusammenhangslosigkeit der Prozesse, worin die Produktion nur zusammengesetzter Machwerke zerfällt, an und für sich die Verwandlung solcher Manufakturen in den Maschinenbetrieb der großen Industrie sehr erschwert, kommen bei der Uhr noch zwei andre Hindernisse hinzu, die Kleinheit und Delikatesse ihrer Elemente und ihr Luxuscharakter, daher ihre Varietät, so daß z.B. in den besten Londoner Häusern das ganze Jahr hindurch kaum ein Dutzend Uhren gemacht werden, die sich ähnlich sehn. Die Uhrenfabrik von Vacheron & Constantin, die mit Erfolg Maschinerie anwendet, liefert auch höchstens 3–4 verschiedene Varietäten von Größe und Form.

³³ In der Uhrmacherei, diesem klassischen Beispiel der heterogenen Manufaktur, kann man sehr genau die oben erwähnte aus der Zersetzung der handwerksmäßigen Tätigkeit entspringende Differenzierung und Spezialisierung der Arbeitsinstrumente studieren.

Needle manufacturing is an example for the second form of manufacturing.

The second kind of manufacture, its perfected form, produces articles that go through connected phases of development, through a series of processes step by step, like the wire in the manufacture of needles, which passes through the hands of 72 and sometimes even 92 different detail workmen.

364:1 Die zweite Art der Manufaktur, ihre vollendete Form, produziert Machwerke, die zusammenhängende Entwicklungsphasen, eine Reihenfolge von Stufenprozessen durchlaufen, wie z.B. der Draht in der Nähadelmanufaktur die Hände von 72 und selbst 92 spezifischen Teilarbeitern durchläuft.

14.3.b. [The Basic Contradiction of Manufacture]

The mode of production based on Manufactories has a contradictory character: on the one hand it combines many different labor processes, but on the other hand it isolates and ossifies (*verselbständigt*) each phase of production since it must be done by a different worker. This creates an immanent limitation of manufacture, the need to establish the connection between the isolated functions:

In so far as such a manufacture, when first started, combines scattered handicrafts, it lessens the space by which the various phases of production are separated from each other. The time taken in passing from one stage to another is shortened, so is the labor that effectuates this passage.³⁴ In comparison with a handicraft, productive power is gained, and this gain is owing to the general co-operative character of manufacture.

³⁴ "In so close a cohabitation of the people, the carriage must needs be less." ("The Advantages of the East India Trade," p. 106.)

↑ Productivity is gained, ↓ but there is also a drawback:

On the other hand, division of labor, which is the distinguishing principle of manufacture, requires the isolation of the various stages of production and their independence of each other. The establishment and maintenance of a connexion between the isolated functions necessitates the incessant transport of the article from one hand to another, and from one process to another.

The character of this limitation can only be seen clearly after the limitation has been overcome.

From the standpoint of modern mechanical industry, this necessity stands forth as a characteristic and costly disadvantage, and one that is immanent in the principle of manufacture.³⁵

³⁵ "The isolation of the different stages of manufacture, consequent upon the employment of manual labor, adds immensely to the cost of production, the loss mainly arising from the mere removals from one process to another." ("The Industry of Nations." Lond., 1855, Part II, p. 200.)

364:2 Soweit solche Manufaktur ursprünglich zerstreute Handwerke kombiniert, vermindert sie die räumliche Trennung zwischen den besondern Produktionsphasen des Machwerks. Die Zeit seines Übergangs aus einem Stadium in das andre wird verkürzt, ebenso die Arbeit, welche diese Übergänge vermittelt.³⁴ Im Vergleich zum Handwerk wird so Produktivkraft gewonnen, und zwar entspringt dieser Gewinn aus dem allgemeinen kooperativen Charakter der Manufaktur.

³⁴ „Wenn die Menschen so dicht nebeneinander arbeiten, muß der Transport notwendigerweise geringer sein.“ („The Advantages of the East India Trade“, p. 106.)

Andrerseits bedingt ihr eigentümliches Prinzip der Teilung der Arbeit eine Isolierung der verschiedenen Produktionsphasen, die als ebenso viele handwerksmäßige Teilarbeiten gegeneinander verselbständigt sind. Die Herstellung und Erhaltung des Zusammenhangs zwischen den isolierten Funktionen ernötigt beständigen Transport des Machwerks aus einer Hand in die andre und aus einem Prozeß in den andren.

Vom Standpunkt der großen Industrie tritt dies als eine charakteristische, kostspielige und dem Prinzip der Manufaktur immanente Beschränktheit hervor.³⁵

³⁵ „Die Vereinzelung der verschiedenen Produktionsstufen in der Manufaktur, die aus der Verwendung von Handarbeit folgt, erhöht die Produktionskosten ungeheuer, wobei der Verlust in der Hauptsache durch die bloße Beförderung von einem Arbeitsprozeß zum anderen entsteht.“ („The Industry of Nations“, Lond. 1855, part II, p. 200.)

Question 968 *Explain the costly disadvantage immanent in the principle of manufacture.*

The temporal succession of the production processes also manifests itself locally as simultaneity.

If we confine our attention to some particular lot of raw materials, of rags, for instance, in paper manufacture, or of wire in needle manufacture, we perceive that it passes in succession through a series of stages in the hands of the various detail workmen until completion. On the other hand, if we look at the workshop as a whole, we see the raw material in all the stages of its production at the same time. The collective laborer, with one set of his many hands armed with one kind of tools, draws the wire, with another set, armed with different tools, he, at the same time, straightens it, with another, he cuts it, with another, points it, and so on. The different detail processes, which were successive in time, have become simultaneous, go on side by side in space. Hence, production of a greater quantum of finished commodities in a given time.³⁶

³⁶ "It (the division of labor) produces also an economy of time by separating the work into its different branches, all of which may be carried on into execution at the same moment . . . By carrying on all the different processes at once, which an individual must have executed separately, it becomes possible to produce a multitude of pins completely finished in the same time as a single pin might have been either cut or pointed." (Dugald Stewart, l.c., p. 319.)

364:3/o Betrachtet man ein bestimmtes Quantum Rohmaterial, z.B. von Lumpen in der Papiermanufaktur oder von Draht in der Nadelmanufaktur, so durchläuft es in den Händen der verschiedenen Teilarbeiter eine zeitliche Stufenfolge von Produktionsphasen bis zu seiner Schlußgestalt. Betrachtet man dagegen die Werkstatt als einen Gesamtmechanismus, so befindet sich das Rohmaterial gleichzeitig in allen seinen Produktionsphasen auf einmal. Mit einem Teil seiner vielen instrumentbewaffneten Hände zieht der aus den Detailarbeiten kombinierte Gesamtarbeiter den Draht, während er gleichzeitig mit andren Händen und Werkzeugen ihn streckt, mit andren schneidet, spitzt etc. Aus einem zeitlichen Nacheinander sind die verschiedenen Stufenprozesse in ein räumliches Nebeneinander verwandelt. Daher Lieferung von mehr fertiger Ware in demselben Zeitraum.³⁶

³⁶ „Sie“ (die Teilung der Arbeit) „verursacht auch eine Zeitersparnis, indem sie die Arbeit in ihre verschiedenen Zweige zerlegt, die alle im gleichen Augenblick ausgeführt werden können . . . Durch die gleichzeitige Durchführung all der verschiedenen Arbeitsprozesse, die ein einzelner getrennt hätte ausführen müssen, wird es z.B. möglich, eine Menge Nadeln in derselben Zeit fertigzustellen, in der eine einzelne Nadel sonst nur abgeschnitten oder zugespitzt worden wäre.“ (Dugald Stewart, l.c. p. 319.)

↓ In the second half of this paragraph, Marx works out one of the main drawbacks of manufacturing: division of labor is pushed to crippling extremes.

This simultaneity, it is true, is due to the general co-operative form of the process as a whole; but Manufacture not only finds the conditions for co-operation ready to hand, it also, to some extent, creates them by the sub-division of handicraft labor. On the other hand, it accomplishes this social organisation of the labor-process only by riveting each laborer to a single fractional detail.

Jene Gleichzeitigkeit entspringt zwar aus der allgemeinen kooperativen Form des Gesamtprozesses, aber die Manufaktur findet nicht nur die Bedingungen der Kooperation vor, sondern schafft sie teilweise erst durch die Zerlegung der handwerksmäßigen Tätigkeit. Andererseits erreicht sie diese gesellschaftliche Organisation des Arbeitsprozesses nur durch Festschmieden desselben Arbeiters an dasselbe Detail.

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The localization of a temporal flow is bad news for the worker: instead of one worker performing several different activities in succession, now there are several workers, each limited to one activity only. On top of this one-sidedness, they are forced to synchronize their labor in a rigid way.

Since the fractional product of each detail laborer is, at the same time, only a particular stage in the development of one and the same finished article, each laborer, or each group of laborers, prepares the raw material for another laborer or group. The result of the labor of the one is the starting-point for the labor of the other. The one workman therefore gives occupation directly to the other. The labor-time necessary in each partial process, for attaining the desired effect, is learnt by experience; and the mechanism of Manufacture, as a whole, is based on the assumption that a given result will be obtained in a given time. It is only on this assumption that the various supplementary labor-processes can proceed uninterruptedly, simultaneously, and side by side. It is clear that this direct dependence of the operations, and therefore of the laborers, on each other, compels each one of them to spend on his work no more than the necessary time, and thus a continuity, uniformity, regularity, order,³⁷ and even intensity of labor, of quite a different kind, is begotten than is to be found in an independent handicraft or even in simple co-operation.

³⁷ "The more variety of artists to every manufacture . . . the greater the order and regularity of every work, the same must needs be done in less time, the labor must be less." ("The Advantages," etc., p. 68.)

↓ In a short digression Marx interjects that commodity production already imposes a discipline on the labor process: those who take longer than socially necessary will not be able to compete on the market.

In the production of commodities generally, the labor-time expended on a commodity must not exceed that which is socially necessary for its production. This takes the form of an external compulsion by competition, since, in the surface interactions, each individual producer is obliged to sell

365:1/o Da das Teilprodukt jedes Teilarbeiters zugleich nur eine besondere Entwicklungsstufe desselben Machwerks ist, liefert ein Arbeiter dem andren oder eine Arbeitergruppe der andern ihr Rohmaterial. Das Arbeitsergebnis des einen bildet den Ausgangspunkt für die Arbeit des andren. Der eine Arbeiter beschäftigt daher hier unmittelbar den andren. Die notwendige Arbeitszeit zur Erreichung des bezweckten Nutzeffekts in jedem Teilprozeß wird erfahrungsmäßig festgestellt, und der Gesamtmechanismus der Manufaktur beruht auf der Voraussetzung, daß in gegebener Arbeitszeit ein gegebenes Resultat erzielt wird. Nur unter dieser Voraussetzung können die verschiedenen, einander ergänzenden Arbeitsprozesse ununterbrochen, gleichzeitig und räumlich nebeneinander fortgehn. Es ist klar, daß diese unmittelbare Abhängigkeit der Arbeiten und daher der Arbeiter voneinander jeden einzelnen zwingt, nur die notwendige Zeit zu seiner Funktion zu verwenden, und so eine ganz andre Kontinuität, Gleichförmigkeit, Regelmäßigkeit, Ordnung³⁷ und namentlich auch Intensität der Arbeit erzeugt wird als im unabhängigen Handwerk oder selbst der einfachen Kooperation.

³⁷ „Je mannigfaltiger die Spezialarbeiter in jeder Manufaktur, . . . um so ordentlicher und regelmäßiger ist jede Arbeit; diese muß notwendig in weniger Zeit getan werden, und die Arbeit muß sich vermindern.“ („The Advantages etc.“, p. 68.)

Daß auf eine Ware nur die zu ihrer Herstellung gesellschaftlich notwendige Arbeitszeit verwandt wird, erscheint bei der Warenproduktion überhaupt als äußerer Zwang der Konkurrenz, weil, oberflächlich ausgedrückt, jeder einzelne Produzent die Ware zu ihrem Marktpreis verkaufen muß.

his commodity at its market-price.

An law on the level of production, namely, that production must not take more than the socially necessary labor-time, “appears” (*erscheint*) on the surface as the exterior compulsion of competition. It is not something the agents want to do, not something they see as their goal, but something that seems to be imposed on them from the outside, by market constraints. Although this looks like an exterior constraint, it is indeed the form of appearance of an internal law.

↓ The technology of manufactories adds a second constraint which is more confining than market competition. While market competition allows individual differences but rewards them differently, manufactories do not even have room for those differences to exist:

In Manufacture, on the contrary, the turning out of a given quantum of product in a given time is a technical law of the process of production itself.³⁸

³⁷ “The more variety of artists to every manufacture . . . the greater the order and regularity of every work, the same must needs be done in less time, the labor must be less.” (“The Advantages,” etc., p. 68.)

³⁸ Nevertheless, the manufacturing system, in many branches of industry, attains this result but very imperfectly, because it knows not how to control with certainty the general chemical and physical conditions of the process of production.

Lieferung von gegebenem Produktenquantum in gegebener Arbeitszeit wird dagegen in der Manufaktur technisches Gesetz des Produktionsprozesses selbst.³⁸

³⁷ „Je mannigfaltiger die Spezialarbeiter in jeder Manufaktur, . . . um so ordentlicher und regelmäßiger ist jede Arbeit; diese muß notwendig in weniger Zeit getan werden, und die Arbeit muß sich vermindern.“ („The Advantages etc.“, p. 68.)

³⁸ Indes erreicht der manufakturmäßige Betrieb dies Resultat in vielen Zweigen nur unvollkommen, weil er die allgemeinen chemischen und physikalischen Bedingungen des Produktionsprozesses nicht mit Sicherheit zu kontrollieren weiß.

Now the problems of coordination coming with this close interdependence:

Different operations take, however, unequal periods, and yield therefore in equal times unequal quantities of fractional products. If, therefore, the same laborer has, day after day, to perform the same operation, there must be a different number of laborers for each operation; for instance, in type manufacture, there are four founders and two breakers to one rubber: the founder casts 2,000 type an hour, the breaker breaks up 4,000, and the rubber polishes 8,000. Here we have again the principle of co-operation in its simplest form, the simultaneous employment of many doing the same thing; only now, this principle is the expression of an organic relation. The division of labor, as carried out in Manufacture, not only simplifies and multiplies the qualitatively different parts of the social collective laborer, but also creates a fixed mathematical relation or ratio which regulates the

366:1 Verschiedne Operationen bedürfen jedoch ungleicher Zeitlängen und liefern daher in gleichen Zeiträumen ungleiche Quanten von Teilprodukten. Soll also derselbe Arbeiter tagaus, tagein stets nur dieselbe Operation verrichten, so müssen für verschiedene Operationen verschiedene Verhältniszahlen von Arbeitern verwandt werden, z.B. 4 Gießer und 2 Abbrecher auf einen Frottierer in einer Typenmanufaktur, wo der Gießer stündlich 2000 Typen gießt, der Abbrecher 4000 abbricht und der Frottierer 8000 blank reibt. Hier kehrt das Prinzip der Kooperation in seiner einfachsten Form zurück, gleichzeitige Beschäftigung vieler, die Gleichartiges tun, aber jetzt als Ausdruck eines organischen Verhältnisses. Die manufakturmäßige Teilung der Arbeit vereinfacht und vermannigfaltigt also nicht nur die qualitativ unterschiednen Organe des gesellschaftlichen Gesamtarbeiters, sondern

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quantitative extent of those parts i.e., the relative number of laborers, or the relative size of the group of laborers, for each detail operation. It develops, along with the qualitative sub-division of the social labor-process, a quantitative rule and proportionality for that process.

When once the most fitting proportion has been experimentally established for the numbers of the detail laborers in the various groups when producing on a given scale, that scale can be extended only by employing a multiple of each particular group.³⁹ There is this to boot, that the same individual can do certain kinds of work just as well on a large as on a small scale; for instance, the labor of superintendence, the carriage of the fractional product from one stage to the next, etc. The isolation of such functions, their allotment to a particular laborer, does not become advantageous till after an increase in the number of laborers employed; but this increase must affect every group proportionally.

In this way manufacturing has difficulties adjusting its scale of production and drives towards the increase in scale of production! Marx will say this more explicitly later.

³⁹ "When (from the peculiar nature of the produce of each manufactory), the number of processes into which it is most advantageous to divide it is ascertained, as well as the number of individuals to be employed, then all other manufactories which do not employ a direct multiple of this number will produce the article at a greater cost . . . Hence arises one of the causes of the great size of manufacturing establishments." (C. Babbage. "On the Economy of Machinery," 1st ed. London. 1832. Ch. xxi, pp. 172–73.)

Glass manufacturing as example for the structuring of the labor process:

The isolated group of laborers to whom any particular detail function is assigned, is made up of homogeneous elements, and is one of the constituent parts of the total mechanism. In many manufactures, however, the group itself is an organised body of labor, the total mechanism being a repetition or multiplication of these elementary

schaftt auch ein mathematisch festes Verhältnis für den quantitativen Umfang dieser Organe, d.h. für die relative Arbeiterzahl oder relative Größe der Arbeitergruppen in jeder Sonderfunktion. Sie entwickelt mit der qualitativen Gliederung die quantitative Regel und Proportionalität des gesellschaftlichen Arbeitsprozesses.

366:2/o Ist die passendste Verhältniszahl der verschiedenen Gruppen von Teilarbeitern erfahrungsmäßig festgesetzt für eine bestimmte Stufenleiter der Produktion, so kann man diese Stufenleiter nur ausdehnen, indem man ein Multipel jeder besondern Arbeitergruppe verwendet.³⁹ Es kommt hinzu, daß dasselbe Individuum gewisse Arbeiten ebensogut auf größerer als kleinerer Stafel ausführt, z.B. die Arbeit der Oberaufsicht, den Transport der Teilprodukte aus einer Produktionsphase in die andre usw. Die Verselbständigung dieser Funktionen oder ihre Zuweisung an besondere Arbeiter wird also erst vorteilhaft mit Vergrößerung der beschäftigten Arbeiterzahl, aber diese Vergrößerung muß sofort alle Gruppen proportionell ergreifen.

³⁹ „Wenn die Erfahrung, je nach der besondern Natur der Produkte jeder Manufaktur, sowohl die vorteilhafteste Art, die Fabrikation in Teiloperationen zu spalten, als auch die für sie nötige Arbeiterzahl kennen gelehrt hat, werden alle Etablissements, die kein exaktes Multipel dieser Zahl anwenden, mit mehr Kosten fabrizieren . . . Dies ist eine der Ursachen der kolossalen Ausdehnung industrieller Etablissements.“ (Ch. Babbage, „On the Economy of Machinery“, Lond. 1832, ch. XXI, p. 172, 173.)

367:1/o Die einzelne Gruppe, eine Anzahl von Arbeitern, die dieselbe Teilfunktion verrichten, besteht aus homogenen Elementen und bildet ein besondres Organ des Gesamtmechanismus. In verschiedenen Manufakturen jedoch ist die Gruppe selbst ein gegliederter Arbeitskörper, während der Gesamtmechanismus durch die Wiederholung

organisms. Take, for instance, the manufacture of glass bottles. It may be resolved into three essentially different stages. First, the preliminary stage, consisting of the preparation of the components of the glass, mixing the sand and lime, etc., and melting them into a fluid mass of glass.⁴⁰ Various detail laborers are employed in this first stage, as also in the final one of removing the bottles from the drying furnace, sorting and packing them, etc. In the middle, between these two stages, comes the glass melting proper, the manipulation of the fluid mass. At each mouth of the furnace, there works a group, called "the hole," consisting of one bottle-maker or finisher, one blower, one gatherer, one putter-up or whetter-off, and one taker-in. These five detail workers are so many special organs of a single working organism that acts only as a whole, and therefore can operate only by the direct co-operation of the whole five. The whole body is paralysed if but one of its members be wanting. But a glass furnace has several openings (in England from 4 to 6), each of which contains an earthenware melting-pot full of molten glass, and employs a similar five-membered group of workers. The organisation of each group is based on division of labor, but the bond between the different groups is simple co-operation, which, by using in common one of the means of production, the furnace, causes it to be more economically consumed. Such a furnace, with its 4–6 groups, constitutes a glass house; and a glass manufactory comprises a number of such glass houses, together with the apparatus and workmen requisite for the preparatory and final stages.

oder Vervielfältigung dieser produktiven Elementarorganismen gebildet wird. Nehmen wir z.B. die Manufaktur von Glasflaschen. Sie zerfällt in drei wesentlich unterschiedne Phasen. Erstens die vorbereitende Phase, wie Bereitung der Glaskomposition, Mengung von Sand, Kalk usw. und Schmelzung dieser Komposition zu einer flüssigen Glasmasse.⁴⁰ In der ersten Phase sind verschiedene Teilarbeiter beschäftigt, ebenso in der Schlußphase, der Entfernung der Flaschen aus den Trockenöfen, ihrer Sortierung, Verpackung usw. Zwischen beiden Phasen steht in der Mitte die eigentliche Glasmacherei oder Verarbeitung der flüssigen Glasmasse. An demselben Munde eines Glasofens arbeitet eine Gruppe, die in England das „hole“ (Loch) heißt und aus einem bottle maker oder finisher, einem blower, einem gatherer, einem putter up oder whetter off und einem taker in zusammengesetzt ist. Diese fünf Teilarbeiter bilden ebenso viele Sonderorgane eines einzigen Arbeitskörpers, der nur als Einheit, also nur durch unmittelbare Kooperation der fünf wirken kann. Fehlt ein Glied des fünfteiligen Körpers, so ist er paralysiert. Derselbe Glasofen hat aber verschiedene Öffnungen, in England z.B. 4–6, deren jede einen irdenen Schmelztiegel mit flüssigem Glas birgt und wovon jede eine eigne Arbeitergruppe von derselben fünfgliedrigen Form beschäftigt. Die Gliederung jeder einzelnen Gruppe beruht hier unmittelbar auf der Teilung der Arbeit, während das Band zwischen den verschiedenen gleichartigen Gruppen einfache Kooperation ist, die eins der Produktionsmittel, hier den Glasofen, durch gemeinsamen Konsum ökonomischer verbraucht. Ein solcher Glasofen mit seinen 4–6 Gruppen bildet eine Glashütte, und eine Glasmanufaktur umfaßt eine Mehrzahl solcher Hütten, zugleich mit den Vorrichtungen und Arbeitern für die einleitenden und abschließenden Produktionsphasen.

⁴⁰ In England, the melting-furnace is distinct from the glass-furnace in which the glass is ma-

⁴⁰ In England ist der Schmelzofen getrennt vom Glasofen, an dem das Glas verarbeitet wird,

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nipulated. In Belgium, one and the same furnace serves for both processes.

in Belgien z.B. dient derselbe Ofen zu beiden Prozessen.

The technical necessities of production not only lead to the growth and internal differentiation of one operation, it can also lead to the combination of previously separate operations:

Finally, just as Manufacture arises in part from the combination of various handicrafts, so, too, it develops into a combination of various manufactures. The larger English glass manufacturers, for instance, make their own earthenware melting-pots, because, on the quality of these depends, to a great extent, the success or failure of the process. The manufacture of one of the means of production is here united with that of the product. On the other hand, the manufacture of the product may be united with other manufactures, of which that product is the raw material, or with the products of which it is itself subsequently mixed. Thus, we find the manufacture of flint glass combined with that of glass cutting and brass founding; the latter for the metal settings of various articles of glass.

368:1 Endlich kann die Manufaktur, wie sie teilweise aus der Kombination verschiedener Handwerke entspringt, sich zu einer Kombination verschiedener Manufakturen entwickeln. Die größten englischen Glashütten z.B. fabrizieren ihre irdenen Schmelztiegel selbst, weil von deren Güte das Gelingen oder Mißlingen des Produkts wesentlich abhängt. Die Manufaktur eines Produktionsmittels wird hier mit der Manufaktur des Produkts verbunden. Umgekehrt kann die Manufaktur des Produkts verbunden werden mit Manufakturen, worin es selbst wieder als Rohmaterial dient oder mit deren Produkten es später zusammengesetzt wird. So findet man z.B. die Manufaktur von Flintglas kombiniert mit der Glasschleiferei und der Gelbgießerei, letztre für die metallische Einfassung mannigfacher Glasartikel.

↓ But this combination has its limits which cannot be overcome by manufacturing itself: The various manufactures so combined form more or less separate departments of a larger manufacture, but are at the same time independent processes, each with its own division of labor. In spite of the many advantages offered by this combination of manufactures, it never grows into a complete technical system on its own foundation. That happens only on its transformation into an industry carried on by machinery.

Die verschiedenen kombinierten Manufakturen bilden dann mehr oder minder räumlich getrennte Departemente einer Gesamtmanufaktur, zugleich voneinander unabhängige Produktionsprozesse, jeder mit eigener Teilung der Arbeit. Trotz mancher Vorteile, welche die kombinierte Manufaktur bietet, gewinnt sie, auf eigener Grundlage, keine wirklich technische Einheit. Diese entsteht erst bei ihrer Verwandlung in den maschinenmäßigen Betrieb.

Again: if one looks back to manufactories from machine technology, one can see better the contradictions which manufactories failed to resolve.

14.3.c. [Effect of the System of Manufacture back down on the Laborer and his Instrument]

First paragraph shows the effects on the instruments. Manufacture leads to sporadic use of machinery.

Early in the manufacturing period, the principle of lessening the necessary labor-time in the production of commodities,⁴¹ was accepted and formulated: and the use

368:2/o Die Manufakturperiode, welche Verminderung der zur Warenproduktion notwendigen Arbeitszeit bald als bewußtes Prinzip ausspricht⁴¹, entwickelt sporadisch

of machines, especially for certain simple first processes that have to be conducted on a very large scale, and with the application of great force, sprang up here and there. Thus, at an early period in paper manufacture, the tearing up of the rags was done by paper-mills; and in metal works, the pounding of the ores was effected by stamping mills.⁴² The Roman Empire had handed down the elementary form of all machinery in the water-wheel.⁴³

⁴¹ This can be seen from W. Petty, John Bellers, Andrew Yarranton, "The Advantages of the East India Trade," and J. Vanderlint, not to mention others.

⁴² Towards the end of the 16th century, mortars and sieves were still used in France for pounding and washing ores.

⁴³ The whole history of the development of machinery can be traced in the history of the corn mill. The factory in England is still a "mill". In German technological works of the first decade of this century, the term "Mühle" is still found in use, not only for all machinery driven by the forces of Nature, but also for all manufactures where apparatus in the nature of machinery is applied.

auch den Gebrauch von Maschinen, namentlich für gewisse einfache erste Prozesse, die massenhaft und mit großem Kraftaufwand auszuführen sind. So wird z.B. bald in der Papiermanufaktur das Zermalmen der Lumpen durch Papiermühlen und in der Metallurgie das Zerstoßen der Erze durch sogenannte Pochmühlen verrichtet.⁴²

Die elementarische Form aller Maschinerie hatte das römische Kaiserreich überliefert in der Wassermühle.⁴³

⁴¹ Man kann dies unter andren ersehn aus W. Petty, John Bellers, Andrew Yarranton, „The Advantages of the East-India Trade“ und J. Vanderlint.

⁴² Noch gegen Ende des 16. Jahrhunderts bedient sich Frankreich der Mörser und Siebe zum Pochen und Waschen der Erze.

⁴³ Die ganze Entwicklungsgeschichte der Maschinerie läßt sich verfolgen an der Geschichte der Getreidemühlen. Die Fabrik heißt im Englischen immer noch mill. In deutschen technologischen Schriften aus den ersten Dezennien des 19. Jahrhunderts findet man noch den Ausdruck Mühle nicht nur für alle mit Naturkräften getriebene Maschinerie, sondern selbst für alle Manufakturen, die maschinenartige Apparate anwenden.

↓ Big inventions come from the handicraft period; machinery had subordinate role.

The handicraft period bequeathed to us the great inventions of the compass, of gunpowder, of type-printing, and of the automatic clock. But, on the whole, machinery played that subordinate part which Adam Smith assigns to it in comparison with division of labor.⁴⁴ The sporadic use of machinery in the 17th century was of the greatest importance, because it supplied the great mathematicians of that time with a practical basis and stimulant to the creation of the science of mechanics.

Die Handwerksperiode vermachte die großen Erfindungen des Kompasses, des Pulvers, der Buchdruckerei und der automatischen Uhr. Im großen und ganzen jedoch spielt die Maschinerie jene Nebenrolle, die Adam Smith ihr neben der Teilung der Arbeit anweist.⁴⁴ Sehr wichtig wurde die sporadische Anwendung der Maschinerie im 17. Jahrhundert, weil sie den großen Mathematikern jener Zeit praktische Anhaltspunkte und Reizmittel zur Schöpfung der modernen Mechanik darbot.

Question 969 Which great inventions were bequeathed by the handicraft period?

⁴⁴ As will be seen more in detail in the fourth book of this work, Adam Smith has not established a single new proposition relating to division of labor. What, however, characterises him as the political economist par excellence of the

⁴⁴ Wie man aus dem Vierten Buch dieser Schrift näher sehn wird, hat A. Smith keinen einzigen neuen Satz über die Teilung der Arbeit aufgestellt. Was ihn aber als den zusammenfassenden politischen Ökonomen der Manufaktur-

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period of Manufacture, is the stress he lays on division of labor. The subordinate part which he assigns to machinery gave occasion in the early days of modern mechanical industry to the polemic of Lauderdale, and, at a later period, to that of Ure. A. Smith also confounds differentiation of the instruments of labor, in which the detail laborers themselves took an active part, with the invention of machinery; in this latter, it is not the workmen in manufactories, but learned men, handicraftsman, and even peasants (Brindley), who play a part.

periode charakterisiert, ist der Akzent, den er auf die Teilung der Arbeiter legt. Die untergeordnete Rolle, die er der Maschinerie anweist, rief im Beginn der großen Industrie Lauderdale's, in einer weiterentwickelten Epoche Ure's Polemik hervor. A. Smith verwechselt auch die Differenzierung der Instrumente, wobei die Teilarbeiter der Manufaktur selbst sehr tätig waren, mit der Maschinenerfindung. Es sind nicht Manufakturarbeiter, sondern Gelehrte, Handwerker, selbst Bauern (Brindley) usw., die hier eine Rolle spielen.

Question 970 *Why did the workers in the manufactories play no role as inventors of machinery?*

After this discussion of the tools, Marx discusses the workers next. Earlier, in , the workers were considered individually; now the combination of the detail laborers to an aggregate laborer is discussed.

The collective laborer, formed by the combination of a number of detail laborers, is the machinery specially characteristic of the manufacturing period. The various operations that are performed in turns by the producer of a commodity, and coalesce one with another during the progress of production, lay claim to him in various ways. In one operation he must exert more strength, in another more skill, in another more attention; and the same individual does not possess all these qualities in an equal degree. After Manufacture has once separated, made independent, and isolated the various operations, the laborers are divided, classified, and grouped according to their predominating qualities. If their natural endowments are, on the one hand, the foundation on which the division of labor is built up, on the other hand, Manufacture, once introduced, develops in them new powers that are by nature fitted only for limited and special functions.

369:1/o Die spezifische Maschinerie der Manufakturperiode bleibt der aus vielen Teilarbeitern kombinierte Gesamtarbeiter selbst. Die verschiedenen Operationen, die der Produzent einer Ware abwechselnd verrichtet und die sich im Ganzen seines Arbeitsprozesses verschlingen, nehmen ihn verschiedenartig in Anspruch. In der einen muß er mehr Kraft entwickeln, in der andren mehr Gewandtheit, in der dritten mehr geistige Aufmerksamkeit usw., und dasselbe Individuum besitzt diese Eigenschaften nicht in gleichem Grad. Nach der Trennung, Verselbständigung und Isolierung der verschiedenen Operationen werden die Arbeiter ihren vorwiegenden Eigenschaften gemäß geteilt, klassifiziert und gruppiert. Bilden ihre Naturbesonderheiten die Grundlage, worauf sich die Teilung der Arbeit pfpöpft, so entwickelt die Manufaktur, einmal eingeführt, Arbeitskräfte, die von Natur nur zu einseitiger Sonderfunktion taugen.

↑ The Simple commodity producer performs in turns various operations which require various skills, although one individual worker may not have all these skills to the same degree. In manufacture, these operations are separated, made independent, and isolated, and the laborers are allocated according to their prevailing skills and exclusively used for these specific functions.

↓ Therefore the aggregate laborer in manufacture is perfect, even though his individual components are one-sided:

14.3. Heterogeneous and Organic Manufacture

The collective laborer now possesses, in an equal degree of excellence, all the qualities requisite for production, and expends them in the most economical manner, by exclusively employing all his organs, consisting of particular laborers, or groups of laborers, in performing their special functions.⁴⁵ The one-sidedness and the deficiencies of the detail laborer become perfections when he is a part of the collective laborer.⁴⁶ The habit of doing only one thing converts him into a never failing instrument, while his connexion with the whole mechanism compels him to work with the regularity of the parts of a machine.⁴⁷

Der Gesamtarbeiter besitzt jetzt alle produktiven Eigenschaften in gleich hohem Grad der Virtuosität und verausgabt sie zugleich aufs ökonomischste, indem er alle seine Organe, individualisiert in besonderen Arbeitern oder Arbeitergruppen, ausschließlich zu ihren spezifischen Funktionen verwendet.⁴⁵ Die Einseitigkeit und selbst die Unvollkommenheit des Teilarbeiters werden zu seiner Vollkommenheit als Glied des Gesamtarbeiters.⁴⁶ Die Gewohnheit einer einseitigen Funktion verwandelt ihn in ihr naturgemäß sicher wirkendes Organ, während der Zusammenhang des Gesamtmechanismus ihn zwingt, mit der Regelmäßigkeit eines Maschinenteils zu wirken.⁴⁷

↑ The individual workers are forced to keep up with the labor process as if they were part of a machine.

⁴⁵ “The master manufacturer, by dividing the work to be executed into different processes, each requiring different degrees of skill or of force, can purchase exactly that precise quantity of both which is necessary for each process; whereas, if the whole work were executed by one workman, that person must possess sufficient skill to perform the most difficult, and sufficient strength to execute the most laborious of the operations into which the article is divided.” (Ch. Babbage, l.c., ch. xix.)

⁴⁶ For instance, abnormal development of some muscles, curvature of bones, etc.

⁴⁷ The question put by one of the Inquiry Commissioners, How the young persons are kept steadily to their work, is very correctly answered by Mr. Wm. Marshall, the general manager of a glass manufactory: “They cannot well neglect their work; when they once begin, they must go on; they are just the same as parts of a machine.” (“Children’s Empl. Comm.,” 4th Rep., 1865, p. 247.)

⁴⁵ „Indem man das Machwerk in mehrere verschiedene Operationen teilt, deren jede verschiedene Grade von Gewandtheit und Kraft erheischt, kann der Manufakturherr sich genau das jeder Operation entsprechende Quantum von Kraft und Gewandtheit verschaffen. Wäre dagegen das ganze Werk von einem Arbeiter zu verrichten, so müßte dasselbe Individuum genug Gewandtheit für die delikatesten und genug Kraft für die mühseligsten Operationen besitzen.“ (Ch. Babbage, l.c., ch. XIX.)

⁴⁶ Z.B. einseitige Muskelentwicklung, Knochenverkrümmung usw.

⁴⁷ Sehr richtig antwortet Herr Wm. Marshall, der general manager einer Glasmanufaktur, auf die Frage des Untersuchungskommissärs, wie die Arbeitsamkeit unter den beschäftigten Jungen aufrechterhalten werde: „Sie können ihre Arbeit gar nicht vernachlässigen; haben sie erst einmal zu arbeiten begonnen, so müssen sie auch weitermachen; sie sind gradeso wie Teile einer Maschine.“ („Child. Empl. Comm., Fourth Report“, 1865, p. 247.)

Since these specific functions have different complexities, the individual laborers have different degrees of education and different values, therefore there is a hierarchy. Then the different labor functions are assimilated to this hierarchy (in order to save wages, no laborer should perform functions which require different skills). Here the monotony of the labor process is revealed as the consequence of capitalism, not of mass production in general.

Since the collective laborer has functions, both simple and complex, both high

370:1 Da die verschiedenen Funktionen des Gesamtarbeiters einfacher oder zusam-

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and low, his members, the individual labor-powers, require different degrees of training, and must therefore have different values. Manufacture, therefore, develops a hierarchy of labor-powers, to which there corresponds a scale of wages. If, on the one hand, the individual laborers are appropriated and annexed for life by a limited function; on the other hand, the various operations of the hierarchy are parcelled out among the laborers according to both their natural and their acquired capabilities.⁴⁸ Every process of production, however, requires certain simple manipulations, which every man is capable of doing. They too are now severed from their connexion with the more pregnant moments of activity, and ossified into exclusive functions of specially appointed laborers.

⁴⁸ Dr. Ure, in his apotheosis of Modern Mechanical Industry, brings out the peculiar character of manufacture more sharply than previous economists, who had not his polemical interest in the matter, and more sharply even than his contemporaries Babbage, e.g., who, though much his superior as a mathematician and mechanician, treated mechanical industry from the standpoint of manufacture alone. Ure says, "This appropriation . . . to each, a workman of appropriate value and cost was naturally assigned, forms the very essence of division of labor." On the other hand, he describes this division as "adaptation of labor to the different talents of men," and lastly, characterises the whole manufacturing system as "a system for the division or gradation of labor," as "the division of labor into degrees of skill," etc. (Ure, l.c., pp. 19–23 passim.)

The simple "unskilled" manipulations are severed from the more difficult ones, and the unskilled laborer is created (same thing which was strictly excluded in the handicraft workshop).

Question 971 Explain how the category of "unskilled labor" (which did not exist in handicraft production) arose.

All these are means to make wages lower:

Hence, Manufacture begets, in every handicraft that it seizes upon, a class of so-called unskilled laborers, a class which

mengesetzter, niedriger oder höher, erscheinen seine Organe, die individuellen Arbeitskräfte, sehr verschiedene Grade der Ausbildung und besitzen daher sehr verschiedene Werte. Die Manufaktur entwickelt also eine Hierarchie der Arbeitskräfte, der eine Stufenleiter der Arbeitslöhne entspricht. Wird einerseits der individuelle Arbeiter einer einseitigen Funktion angeeignet und lebenslang annexiert, so werden ebensosehr die verschiedenen Arbeitsverrichtungen jener Hierarchie der natürlichen und erworbenen Geschicklichkeiten angepaßt.⁴⁸ Jeder Produktionsprozeß bedingt indes gewisse einfache Hantierungen, deren jeder Mensch, wie er geht und steht, fähig ist. Auch sie werden jetzt von ihrem flüssigen Zusammenhang mit den inhaltvollern Momenten der Tätigkeit losgelöst und zu ausschließlichen Funktionen verknöchert.

⁴⁸ Dr. Ure in seiner Apotheose der großen Industrie fühlt die eigentümlichen Charaktere der Manufaktur schärfer heraus als frühere Ökonomen, die nicht sein polemisches Interesse hatten, und selbst als seine Zeitgenossen, z.B. Babbage, der ihm zwar überlegen ist als Mathematiker und Mechaniker, aber dennoch die große Industrie eigentlich nur vom Standpunkt der Manufaktur auffaßt. Ure bemerkt: „Die Aneignung der Arbeiter an jede Sonderoperation bildet das Wesen der Verteilung der Arbeiten.“ Andererseits bezeichnet er diese Verteilung als „Anpassung der Arbeiten an die verschiedenen individuellen Fähigkeiten“ und charakterisiert endlich das ganze Manufaktursystem als „ein System von Gradationen nach dem Rang der Geschicklichkeit“, als „eine Teilung der Arbeit nach den verschiedenen Graden des Geschicks“ usw. (Ure, „Philos. of Manuf.“, p. 19–23 passim.)

371:1 Die Manufaktur erzeugt daher in jedem Handwerk, das sie ergreift, eine Klasse sogenannter ungeschickter Arbeiter, die

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handicraft industry strictly excluded. If it develops a one-sided speciality into a perfection, at the expense of the whole of a man's working capacity, it also begins to make a speciality of the absence of all development. Alongside of the hierarchic gradation there steps the simple separation of the laborers into skilled and unskilled. For the latter, the cost of apprenticeship vanishes; for the former, it diminishes, compared with that of artificers, in consequence of the functions being simplified. In both cases the value of labor-power falls.⁴⁹

⁴⁹ "Each handicraftsman being ... enabled to perfect himself by practice in one point, became ... a cheaper workman." (Ure, l.c., p. 19.)

der Handwerksbetrieb streng ausschloß. Wenn sie die durchaus vereinseitigte Spezialität auf Kosten des ganzen Arbeitsvermögens zur Virtuosität entwickelt, beginnt sie auch schon den Mangel aller Entwicklung zu einer Spezialität zu machen. Neben die hierarchische Abstufung tritt die einfache Scheidung der Arbeiter in geschickte und ungeschickte. Für letztere fallen die Erlernungskosten ganz weg, für erstere sinken sie, im Vergleich zum Handwerker, infolge vereinfachter Funktion. In beiden Fällen sinkt der Wert der Arbeitskraft.⁴⁹

⁴⁹ „Jeder Handwerker, der ... instand gesetzt wurde, sich durch die Praxis in einer Einzelverrichtung zu vervollkommen ... wurde ein billigerer Arbeiter.“ (Ure, l.c. p. 19.)

Exception: the decomposition of the labor-process also creates new comprehensive functions.

An exception to this law holds good whenever the decomposition of the labor-process begets new and comprehensive functions, that either had no place at all, or only a very modest one, in handicrafts.

Ausnahme findet statt, soweit die Zersetzung des Arbeitsprozesses neue zusammenfassende Funktionen erzeugt, die im Handwerksbetrieb gar nicht oder nicht in demselben Umfang vorkamen.

↓ The creation of unskilled labor and devaluation of the laborer is source of relative surplus-value.

The fall in the value of labor-power, caused by the disappearance or diminution of the expenses of apprenticeship, implies a direct increase of surplus-value for the benefit of capital; for everything that shortens the necessary labor-time required for the reproduction of labor-power, extends the domain of surplus-labor.

Die relative Entwertung der Arbeitskraft, die aus dem Wegfall oder der Verminderung der Erlernungskosten entspringt, schließt unmittelbar höhere Verwertung des Kapitals ein, denn alles, was die zur Reproduktion der Arbeitskraft notwendige Zeit verkürzt, verlängert die Domäne der Mehrarbeit.

14.4. Division of Labor in Manufacture and Division of Labor in Society

After having discussed the origin (out of co-operation) of the division of labor in the manufactories, its simple elements, and the totality of these elements, Marx discusses now the relation between the division of labor in the manufactories and the social division of labor in existence when the manufactories were formed. The main question is: is the division of labor in the manufactories the organic further development of the division of labor mediated by commodity exchange, or must it be understood as a capitalist phenomenon. Marx will show that it is a specific capitalist phenomenon.

14. Division of Labor and Manufactories

We first considered the origin of Manufacture out of co-operation, then its simple elements, then the detail laborer and his implements, and finally, the totality of the mechanism. We shall now lightly touch upon the relation between the division of labor in manufacture, and the social division of labor, which forms the foundation of all production of commodities.

371:2 Wir betrachteten erst den Ursprung der Manufaktur, dann ihre einfachen Elemente, den Teilarbeiter und sein Werkzeug, endlich ihren Gesamtmechanismus. Wir berühren jetzt kurz das Verhältnis zwischen der manufakturmäßigen Teilung der Arbeit und der gesellschaftlichen Teilung der Arbeit, welche die allgemeine Grundlage aller Warenproduktion bildet.

The above translation “the origin of Manufacture out of co-operation” leans on the French [megaII/7]301:1 “nous avons vu comment la manufacture est sortie

de la coopération” which is clearer and more explicit than the German. Moore-Aveling [megaII/7]288:1 and Fowkes have “We first considered the origin of

Manufacture,” they leave out the phrase “out of co-operation” which is not in the German but in the French edition.

14.4.a. [General Classification of Division of Labor]

Marx begins with a classification of division of labor using the categories general, particular, and individual (im einzelnen).

If we keep labor alone in view, we may designate the separation of social production into its main divisions or *genera*—viz., agriculture, industries, etc., as division of labor in general, and the splitting up of these genera into species and sub-species, as division of labor in particular, and the division of labor within the workshop as division of labor in singular or in detail.⁵⁰

371:3 Hält man nur die Arbeit selbst im Auge, so kann man die Trennung der gesellschaftlichen Produktion in ihre großen Gattungen, wie Agrikultur, Industrie usw., als Teilung der Arbeit im allgemeinen, die Sonderung dieser Produktionsgattungen in Arten und Unterarten als Teilung der Arbeit im besondern, und die Teilung der Arbeit innerhalb einer Werkstatt als Teilung der Arbeit im einzelnen bezeichnen.⁵⁰

⁵⁰ “Division of labor proceeds from the separation of professions the most widely different to that division, where several laborers divide between them the preparation of one and the same product, as in manufacture.” (Storch: “Cours d’Econ. Pol.,” Paris Edn. t. I., p. 173.) “Nous rencontrons chez les peuples parvenus à un certain degré de civilisation trois genres de divisions d’industrie: la première, que nous nommerons générale, amène la distinction des producteurs en agriculteurs, manufacturiers et commerçants, elle se rapporte aux trois principales branches d’industrie nationale; la seconde, qu’on pourrait appeler spéciale, est la division de chaque genre d’industrie en espèces ... la troisième division d’industrie, celle enfin qu’on devrait qualifier de division de la besogne ou de travail proprement dit, est celle qui s’établit dans les arts et les métiers séparés ... qui s’établit dans la plupart des manufactures et des ateliers.” (Skarbek,

⁵⁰ „Die Teilung der Arbeit geht von der Trennung der verschiedenartigsten Professionen fort bis zu jener Teilung, wo mehrere Arbeiter sich in die Anfertigung eines und desselben Produkts teilen, wie in der Manufaktur.“ (Storch, „Cours d’Écon. Pol.“, Pariser Ausgabe, t. I, p. 173.) „Wir begegnen bei den Völkern, die eine gewisse Stufe der Zivilisation erreicht haben, drei Arten von Arbeitsteilung: die erste, die wir die allgemeine nennen, führt die Scheidung der Produzenten in Landwirte, Gewerbetreibende und Kaufleute herbei, sie entspricht den drei Hauptzweigen der nationalen Arbeit; die zweite, die man die besondere nennen könnte, ist die Teilung jedes Arbeitszweigs in Arten ... die dritte Arbeitsteilung endlich, die man als Teilung der Arbeitsverrichtung oder als Arbeitsteilung im eigentlichen Sinne bezeichnen sollte, ist diejenige, die sich in den einzelnen Handwerken und Berufen herausbildet ... und in den meisten Manufakturen und Werkstät-

l.c., pp. 84, 85.)

| ten Fuß faßt.“ (Skarbek, l.c. p. 84, 85.)

14.4.b. [Double Origin of the Division of Labor]

The same duality which we observed in the origin of manufactories and the phenomenology of developed manufactories can also be observed in the origin of social division of labor:

↓ *Origin* of division of labor in society is twofold, just as the origin of division of labor in one manufactory is twofold. This is one of their “analogies” as he calls them in . In both cases, the dialectics between dependence and independence is responsible for this twofold origin. Note the *three* phases:

- 1) “Physiological” division of labor one of the points of departure.
- 2) Exchange on the borders of independent communities which produce different things due to different conditions the other point of departure.
- 3) This exchange acts back on the internal division of labor, until the connection is mediated only by the exchange of commodities between individuals.

This exchange occurs when the division of labor is fully developed and the centrifugal part, the independence, gains the upper hand.

Division of labor in a society, and the corresponding tying down of individuals to a particular calling, develops itself, just as does the division of labor in manufacture, from opposite starting-points.

372/o Die Teilung der Arbeit innerhalb der Gesellschaft und die entsprechende Beschränkung der Individuen auf besondere Berufssphären entwickelt sich, wie die Teilung der Arbeit innerhalb der Manufaktur, von entgegengesetzten Ausgangspunkten.

First development path:

Within a family,^{50a} and after further development within a tribe, there springs up naturally a division of labor, caused by differences of sex and age, a division that is consequently based on a purely physiological foundation, which division enlarges its materials by the expansion of the community, by the increase of population, and more especially, by the conflicts between different tribes, and the subjugation of one tribe by another.

Innerhalb einer Familie,^{50a} weiter entwickelt eines Stammes, entspringt eine naturwüchsige Teilung der Arbeit aus den Geschlechts- und Altersverschiedenheiten, also auf rein physiologischer Grundlage, die mit der Ausdehnung des Gemeinwesens, der Zunahme der Bevölkerung und namentlich dem Konflikt zwischen verschiedenen Stämmen und der Unterjochung eines Stamms durch den andren ihr Material ausweitet.

^{50a} *Note to the third edition.* Subsequent very searching study of the primitive condition of man, led the author to the conclusion, that it was not the family that originally developed into the tribe, but that, on the contrary, the tribe was the primitive and spontaneously developed form of human association, on the basis of blood relationship, and that out of the first incipient loosening of the tribal bonds, the many and various forms of the family were afterwards developed. F. E.

^{50a} {Note zur 3. Aufl.—Spätere sehr gründliche Studien der menschlichen Urzustände führten den Verfasser zum Ergebnis, daß ursprünglich nicht die Familie sich zum Stamm ausgebildet, sondern umgekehrt, der Stamm die ursprüngliche naturwüchsige Form der auf Blutsverwandtschaft beruhenden menschlichen Vergesellschaftung war, so daß aus der beginnenden Auflösung der Stammesbände erst später die vielfach verschidnen Formen der Familie sich entwickelten.—F. E.}

The second development path was already discussed earlier, in 98:1:

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On the other hand, as I have before remarked, the exchange of products springs up at the points where different families, tribes, communities, come in contact; for, in the beginning of civilisation, it is not private individuals but families, tribes, etc., that meet on an independent footing. Different communities find different means of production, and different means of subsistence in their natural environment. Hence, their modes of production, and of living, and their products are different. It is this spontaneously developed difference which, when different communities come in contact, calls forth the mutual exchange of products, and the consequent gradual conversion of those products into commodities. Exchange does not create the differences between the spheres of production, but brings what are already different into relation, and thus converts them into more or less inter-dependent branches of the collective production of an enlarged society.

Andrerseits, wie ich früher bemerkt, entspringt der Produktaustausch an den Punkten, wo verschiedene Familien, Stämme, Gemeinwesen in Kontakt kommen, denn nicht Privatpersonen, sondern Familien, Stämme usw. treten sich in den Anfängen der Kultur selbständig gegenüber. Verschiedne Gemeinwesen finden verschiedene Produktionsmittel und verschiedene Lebensmittel in ihrer Naturumgebung vor. Ihre Produktionsweise, Lebensweise und Produkte sind daher verschieden. Es ist diese naturwüchsige Verschiedenheit, die bei dem Kontakt der Gemeinwesen den Austausch der wechselseitigen Produkte und daher die allmähliche Verwandlung dieser Produkte in Waren hervorruft. Der Austausch schafft nicht den Unterschied der Produktionssphären, sondern setzt die unterschiednen in Beziehung und verwandelt sie so in mehr oder minder voneinander abhängige Zweige einer gesellschaftlichen Gesamtproduktion.

Comparison of and connection between the two development paths:

In the latter case, the social division of labor arises from the exchange between spheres of production, that are originally distinct and independent of one another. In the former, where the physiological division of labor is the starting-point, the particular organs of a compact whole grow loose, and break off, principally owing to the exchange of commodities with foreign communities, and then isolate themselves so far, that the sole bond still connecting the various kinds of work is the exchange of the products as commodities.

Hier entsteht die gesellschaftliche Teilung der Arbeit durch den Austausch ursprünglich verschiedner, aber voneinander unabhängiger Produktionssphären. Dort, wo die physiologische Teilung der Arbeit den Ausgangspunkt bildet, lösen sich die besondren Organe eines unmittelbar zusammengehörigen Ganzen voneinander ab, zersetzen sich, zu welchem Zersetzungsprozeß der Warenaustausch mit fremden Gemeinwesen den Hauptanstoß gibt, und verselbständigen sich bis zu dem Punkt, wo der Zusammenhang der verschiedenen Arbeiten durch den Austausch der Produkte als Waren vermittelt wird.

↓ The following characterization is shared also by the two alternative pathways to manufactures, see :

In the one case, it is the making dependent what was before independent; in the other case, the making independent what was before dependent.

Es ist in dem einen Fall Verunselbständigung der früher Selbständigen, in dem andren Verselbständigung der früher Unselbständigen.

↑ Note that the making dependent of the formerly independent gave the stimulus to make that independent what was formerly dependent.

14.4.c. [Division of Labor Mediated by Commodity Exchange]

So far, Marx has discussed division of labor in any society. Now he focuses on the division of labor mediated by commodity exchange.

Separation between town and country “foundation of every division of labor that is *well developed*, and *brought about by the exchange of commodities*.”

The foundation of every division of labor that is well developed, and brought about by the exchange of commodities, is the separation between town and country.⁵¹ It may be said, that the whole economic history of society is summed up in the movement of this antithesis. We pass it over, however, for the present.

373:1 Die Grundlage aller entwickelten und durch Warenaustausch vermittelten Teilung der Arbeit ist die Scheidung von Stadt und Land.⁵¹ Man kann sagen, daß die ganze ökonomische Geschichte der Gesellschaft sich in der Bewegung dieses Gegensatzes resümiert, auf den wir jedoch hier nicht weiter eingehen.

The formulation “movement of this contradiction” is revealing. It also applies to what Marx is doing in the present chapter: he is studying the movement of the contradiction inherent in the division of labor.

⁵¹ Sir James Steuart is the economist who has handled this subject best. How little his book, which appeared ten years before the “Wealth of Nations,” is known, even at the present time, may be judged from the fact that the admirers of Malthus do not even know that the first edition of the latter’s work on population contains, except in the purely declamatory part, very little but extracts from Steuart, and in a less degree, from Wallace and Townsend.

⁵¹ Sir James Steuart hat diesen Punkt am besten behandelt. Wie wenig sein Werk, welches 10 Jahre vor dem „Wealth of Nations“ erschien, heutzutage bekannt ist, sieht man u.a. daraus, daß die Bewunderer des Malthus nicht einmal wissen, daß dieser in der ersten Ausgabe seiner Schrift über die „Population“, vom rein deklamatorischen Teil abgesehen, neben den Pfaffen Wallace und Townsend fast nur den Steuart abschreibt.

Density of population in society a material prerequisite of division of labor, just as the increased number of workers in the same workshop was the material prerequisite for the division of labor in one manufactory (another “analogy”). Impulse of the division of labor in the manufactories came from the labor process, this is its capitalist birthmark which is only overcome in machinery, where the impulse came from the tool.

Just as a certain number of simultaneously employed laborers are the material pre-requisites for division of labor in manufacture, so are the number and density of the population, which here correspond to the agglomeration in one workshop, a necessary condition for the division of labor in society.⁵²

373:2 Wie für die Teilung der Arbeit innerhalb der Manufaktur eine gewisse Anzahl gleichzeitig angewandter Arbeiter die materielle Voraussetzung bildet, so für die Teilung der Arbeit innerhalb der Gesellschaft die Größe der Bevölkerung und ihre Dichtigkeit, die hier an die Stelle der Agglomeration in derselben Werkstatt tritt.⁵²

⁵² “There is a certain density of population which is convenient, both for social intercourse, and for that combination of powers by which the produce of labor is increased.” (James Mill, l.c., p. 50.) “As the number of laborers increases, the productive power of society augments in the compound ratio of that increase, multiplied by the effects of the division of labor.” (Th. Hodgskin, l.c., pp. 125, 126.)

⁵² „Es gibt eine gewisse Bevölkerungsdichte, die zweckdienlich ist, sowohl für den gesellschaftlichen Verkehr als auch für jenes Zusammenwirken der Kräfte, durch das der Ertrag der Arbeit gesteigert wird.“ (James Mill, l.c. p. 50.) „Wenn die Zahl der Arbeiter wächst, steigt die Produktivkraft der Gesellschaft im gleichen Verhältnis zu diesem Wachstum, multipliziert mit der Wirkung der Arbeitsteilung.“ (Th. Hodgskin, l.c.

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p. 120.)

↓ More details about what this density means:

Nevertheless, this density is more or less relative. A relatively thinly populated country, with well-developed means of communication, has a denser population than a more numerous populated country, with badly-developed means of communication; and in this sense the Northern States of the American Union, for instance, are more thickly populated than India.⁵³

⁵³ In consequence of the great demand for cotton after 1861, the production of cotton, in some thickly populated districts of India, was extended at the expense of rice cultivation. In consequence there arose local famines, the defective means of communication not permitting the failure of rice in one district to be compensated by importation from another.

Indes ist diese Dichtigkeit etwas Relatives. Ein relativ spärlich bevölkertes Land mit entwickelten Kommunikationsmitteln besitzt eine dichtere Bevölkerung als ein mehr bevölkertes Land mit unentwickelten Kommunikationsmitteln, und in dieser Art sind z.B. die nördlichen Staaten der amerikanischen Union dichter bevölkert als Indien.⁵³

⁵³ Infolge der großen Baumwollnachfrage seit 1861 wurde in einigen sonst zahlreich bevölkerten Distrikten Ostindiens die Baumwollproduktion auf Kosten der Reisproduktion ausgedehnt. Es entstand daher partielle Hungersnot, weil wegen mangelnder Kommunikationsmittel und daher mangelnden physischen Zusammenhangs der Reisausfall in einem Distrikt nicht durch Zufuhr aus andren Distrikten ausgeglichen werden konnte.

14.4.d. [Connections between Division of Labor in Society and in the Manufactories]

↓ Division of labor in the manufactories can only develop after the social division of labor mediated by commodity exchange has already reached a certain level:

Since the production and the circulation of commodities are the general prerequisites of the capitalist mode of production, division of labor in manufacture requires that division of labor in society at large should previously have attained a certain degree of development.

↓ But then the division of labor in the manufactories deepens and multiplies the social division of labor:

Inversely, the division of labor in the manufactories reacts upon and develops and multiplies that in society.

374/o Da Warenproduktion und Warenzirkulation die allgemeine Voraussetzung der kapitalistischen Produktionsweise, erheischt manufakturmäßige Teilung der Arbeit eine schon bis zu gewissem Entwicklungsgrad gereifte Teilung der Arbeit im Innern der Gesellschaft.

Umgekehrt entwickelt und vervielfältigt die manufakturmäßige Teilung der Arbeit rückwirkend jene gesellschaftliche Teilung der Arbeit.

This happens in several ways. (1) The specialization of labor and differentiation of means of production inside the manufactories also fosters a deeper social division of labor.

Simultaneously, with the differentiation of the instruments of labor, the industries that produce these instruments, become more and more differentiated.⁵⁴ If the manufacturing system seize upon an industry, which, previously, was carried on in con-

Mit der Differenzierung der Arbeitsinstrumente differenzieren sich mehr und mehr die Gewerbe, welche diese Instrumente produzieren.⁵⁴ Ergreift der manufakturmäßige Betrieb ein Gewerbe, das bisher als Haupt- oder Nebengewerbe mit andren zusammen-

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nexion with others, either as a chief or as a subordinate industry, and by one producer, these industries immediately separate their connexion, and become independent. If it seizes upon a particular stage in the production of a commodity, the other stages of its production become converted into so many independent industries.

hing und von demselben Produzenten ausgeführt wurde, so findet sofort Scheidung und gegenseitige Verselbständigung statt. Ergreift er eine besondere Produktionsstufe einer Ware, so verwandeln sich ihre verschiedenen Produktionsstufen in verschiedene unabhängige Gewerbe.

(2) Social division of labor is fostered also by those manufactories which combine many different crafts:

It has already been stated, that where the finished article consists merely of a number of parts fitted together, the detail operations may re-establish themselves as genuine and separate handicrafts.

Es ward bereits angedeutet, daß, wo das Machwerk ein bloß mechanisch zusammengesetztes Ganze von Teilprodukten, die Teilarbeiten sich selbst wieder zu eignen Handwerken verselbständigen können.

The manufactories even split themselves into parts in order to accomplish a “more perfect” division of labor:

In order to carry out more perfectly the division of labor in a manufactory, a formerly undivided branch of production is, according to the varieties of its raw material, or the various forms that one and the same raw material may assume, split up into numerous, and to some extent, entirely new manufactories. Accordingly, in France alone, in the first half of the 18th century, over 100 different kinds of silk stuffs were woven, and, in Avignon, it was law, that “every apprentice should devote himself to only one sort of fabrication, and should not learn the preparation of several kinds of stuff at once.”

Um die Teilung der Arbeiter vollkommener innerhalb einer Manufaktur auszuführen, wird derselbe Produktionszweig, je nach der Verschiedenheit seiner Rohstoffe oder der verschiedenen Formen, die derselbe Rohstoff erhalten kann, in verschiedene, zum Teil ganz neue Manufakturen gespaltet. So wurden bereits in der ersten Hälfte des 18. Jahrhunderts in Frankreich allein über 100 verschiedenartige Seidenzeuge gewebt, und in Avignon z.B. war es Gesetz, daß „jeder Lehrling sich immer nur einer Fabrikationsart widmen und nicht die Verfertigung mehrerer Zeugarten zugleich lernen durfte“.

Also territorial division of labor and division of labor within the colonial system are stimulated by the system of manufactories.

The territorial division of labor, which confines special branches of production to special districts of a country, acquires fresh stimulus from the system of manufactories, which exploits every special advantage.⁵⁵ The Colonial system and the opening out of the markets of the world, both of which are included in the general conditions of existence of the manufacturing period, furnish rich material for developing the division of labor in society.

Die territoriale Teilung der Arbeit, welche besondere Produktionszweige an besondere Distrikte eines Landes bannt, erhält neuen Anstoß durch den manufakturmäßigen Betrieb, der alle Besonderheiten ausbeutet.⁵⁵ Reiches Material zur Teilung der Arbeit innerhalb der Gesellschaft liefert der Manufakturperiode die Erweiterung des Weltmarkts und das Kolonialsystem, die zum Umkreis ihrer allgemeinen Existenzbedingungen gehören.

⁵⁴ Thus the fabrication of shuttles formed as early as the 17th century, a special branch of industry in Holland.

⁵⁴ So bildete die Fabrikation der Weberschiffchen schon während des 17. Jahrhunderts einen besondern Industriezweig in Holland.

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⁵⁵ Whether the woollen manufacture of England is not divided into several parts or branches appropriated to particular places, where they are only or principally manufactured; fine cloths in Somersetshire, coarse in Yorkshire, long ells at Exeter, soies at Sudbury, crapes at Norwich, linseys at Kendal, blankets at Whitney, and so forth.” (Berkeley: “The Querist,” 1751, §520.)

⁵⁵ „Ist nicht die Wollmanufaktur Englands in verschiedene Teile oder Zweige geschieden, die sich an besonderen Orten festgesetzt haben, wo sie allein oder hauptsächlich hergestellt werden; feine Tuche in Somersetshire, grobe in Yorkshire, doppelbreite in Exeter, in Sudbury, Krepps in Norwich, Halbwollstoffe in Kendal, Decken in Whitney usw.!“ (Berkeley, „The Querist“, 1750, §520.)

↓ Non-economic effects of the manufactorial division of labor: specialization and sorting everywhere.

It is not the place, here, to go on to show how division of labor seizes upon, not only the economic, but every other sphere of society, and everywhere lays the foundation of that all engrossing system of specialising and sorting men, that development in a man of one single faculty at the expense of all other faculties, which caused A. Ferguson, the master of Adam Smith, to exclaim: “We make a nation of Helots, and have no free citizens.”⁵⁶

Es ist hier nicht der Ort, weiter nachzuweisen, wie sie neben der ökonomischen jede andre Sphäre der Gesellschaft ergreift und überall die Grundlage zu jener Ausbildung des Fachwesens, der Spezialitäten, und einer Parzellierung des Menschen legt, die schon A. Ferguson, den Lehrer A. Smiths, in den Ausruf ausbrechen ließ: „Wir machen eine Nation von Heloten, und es gibt keine Freien unter uns.“⁵⁶

⁵⁶ A. Ferguson: “History of Civil Society.” Edinburgh, 1767; Part iv, sect. ii., p. 285.

⁵⁶ A. Ferguson, „History of Civil Society“, Edinb. 1767, part IV, sect. II, p. 285.

14.4.e. [Essential Differences between Division of Labor in Society and in the Manufactories]

But, in spite of the numerous analogies and links connecting them, division of labor in the interior of a society, and that in the interior of a workshop, differ not only in degree, but also in kind.

375:1/oo Trotz der zahlreichen Analogien jedoch und der Zusammenhänge zwischen der Teilung der Arbeit im Innern der Gesellschaft und der Teilung innerhalb einer Werkstatt sind beide nicht nur graduell, sondern wesentlich unterschieden.

To make the case that there is a difference between division of labor in society and division of labor in the manufactories, Marx begins with a situation where the division of labor in society seems the most *similar* to the division of labor in a manufactory:

Such analogy seems perhaps most striking where an inner bond weaves through different branches of trade.

Am schlagendsten scheint die Analogie unstreitig, wo ein innres Band verschiedene Geschäftszweige verschlingt.

“*Unstreitig*” (undisputably) is translated with “perhaps,” i.e.,

Marx’s overstatement is replaced by an English-speaking understatement.

↑ If different branches in the social division of labor are united by an inner bond, one might think that there is no essential difference between their social division of labor and the division of labor in a manufactory. Marx is about to give an Achilles-heel critique of this mistaken notion, he critiques it at the point where it seems most convincing. ↓ Livestock as an example:

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For instance the cattle-breeder produces hides, the tanner makes the hides into leather, and the shoemaker, the leather into boots. Here the thing produced by each of them is but a step towards the final form, which is the product of all their labors combined. There are, besides, all the various industries that supply the cattle-breeder, the tanner, and the shoemaker with the means of production.

Der Viehzüchter z.B. produziert Häute, der Gerber verwandelt die Häute in Leder, der Schuster das Leder in Stiefel. Jeder produziert hier ein Stufenprodukt, und die letzte fertige Gestalt ist das kombinierte Produkt ihrer Sonderarbeiten. Es kommen hinzu die mannigfachen Arbeitszweige, die dem Viehzüchter, Gerber, Schuster Produktionsmittel liefern.

The mistaken notion that the distinction between division of labor in society and that in manufacture is only subjective seems even more convincing because it was held by Adam Smith:

Now it is quite possible to imagine, with Adam Smith, that the difference between the above social division of labor, and the division in manufacture, is merely subjective, exists merely for the observer, who, in a manufacture, can see with one glance, all the numerous operations being performed on one spot, while in the instance given above, the spreading out of the work over great areas, and the great number of people employed in each branch of labor, obscure the connexion.⁵⁷

Man kann sich nun mit A. Smith einbilden, diese gesellschaftliche Teilung der Arbeit unterscheide sich von der manufakturmäßigen nur subjektiv, nämlich für den Beobachter, der hier die mannigfachen Teilarbeiten auf einen Blick räumlich zusammensieht, während dort ihre Zerstreuung über große Flächen und die große Zahl der in jedem Sonderzweig Beschäftigten den Zusammenhang verdunkeln.⁵⁷

The footnote gives textual evidence that Smith held this view:

⁵⁷ In manufacture proper, he says, the division of labor seems to be greater, because "those employed in every different branch of the work can often be collected into the same workhouse, and placed at once under the view of the spectator. In those great manufactures, (!) on the contrary, which are destined to supply the great wants of the great body of the people, every different branch of the work employs so great a number of workmen, that it is impossible to collect them all into the same workhouse ... the division is not near so obvious." (A. Smith: "Wealth of Nations," bk. I, ch. I.) The celebrated passage in the same chapter that begins with the words, "Observe the accommodation of the most common artificer or day-laborer in a civilised and thriving country," etc., and then proceeds to depict what an enormous number and variety of industries contribute to the satisfaction of the wants of an ordinary laborer, is copied almost word for word from B. de Mandeville's Remarks to his "Fable of the Bees, or Private Vices, Publick Benefits." (First ed., without the remarks, 1706; with the

⁵⁷ In den eigentlichen Manufakturen, sagt er, scheint die Teilung der Arbeit größer, weil „die in jedem einzelnen Arbeitszweig Beschäftigten oft in einem Arbeitshaus zusammen sein und vom Beobachter mit einem Blick übersehen werden können. In jenen großen Manufakturen (!) dagegen, welche dazu bestimmt sind, die Hauptbedürfnisse der großen Masse der Bevölkerung zu befriedigen, sind in jedem einzelnen Arbeitszweig so viele Arbeiter beschäftigt, daß man sie unmöglich in einem Arbeitshaus zusammenbringen kann ... die Teilung ist nicht annähernd so offensichtlich.“ (A. Smith, „Wealth of Nations“, b. I, ch. I.) Der berühmte Passus in demselben Kapitel, der mit den Worten beginnt: „Man betrachte die Habe des gewöhnlichsten Handwerkers oder Tagelöhners in einem zivilisierten und blühenden Lande usw.“ und dann weiter ausmalt, wie zahllos mannigfaltige Gewerbe zur Befriedigung der Bedürfnisse eines gewöhnlichen Arbeiters zusammenwirken, ist ziemlich wörtlich kopiert aus B. de Mandevilles Remarks zu seiner „Fable of the Bees, or, Private Vices, Publick Be-

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remarks, 1714.)

nefits.“ (Erste Ausgabe ohne Remarks 1705, mit den Remarks 1714.)

Even in this case, when the division of labor in society seems most similar to the division of labor in a manufactory, there are many essential differences. Marx gives a list. ↓ First item in this list: they two kinds of division of labor are mediated by different mechanisms. Markets play a role in both, but for the division of labor in society it is the product market, while for the division of labor in the manufactory it is the labor market.

But what is it that forms the bond between the independent labors of the cattle-breeder, the tanner, and the shoemaker? It is the fact that their respective products are commodities. What, on the other hand, characterises division of labor in manufactures? The fact that the detail laborer produces no commodities.⁵⁸ It is only the common product of all the detail laborers that becomes a commodity.^{58a} Division of labor in society is brought about by the purchase and sale of the products of different branches of industry, while the connexion between the detail operations in a workshop is due to the sale of the labor-power of several workmen to one capitalist, who applies it as combined labor-power.

⁵⁸ “There is no longer anything which we can call the natural reward of individual labor. Each laborer produces only some part of a whole, and each part, having no value or utility in itself, there is nothing on which the laborer can seize, and say: It is my product, this I will keep to myself.” (“Labor Defended against the Claims of Capital.” Lond., 1825, p. 25.) The author of this admirable work is the Th. Hodgskin I have already cited.

^{58a} This distinction between division of labor in society and in manufacture, was practically illustrated to the Yankees. One of the new taxes devised at Washington during the civil war, was the duty of 6% “on all industrial products.” Question: What is an industrial product? Answer of the legislature: A thing is produced “when it is made,” and it is made when it is ready for sale. Now, for one example out of many. The New York and Philadelphia manufacturers had previously been in the habit of “making” umbrellas with all their belongings. But since an umbrella is a *mixtum compositum* of very heterogeneous parts, by degrees these parts became the prod-

Was aber stellt den Zusammenhang her zwischen den unabhängigen Arbeiten von Viehzüchter, Gerber, Schuster? Das Dasein ihrer respektiven Produkte als Waren. Was charakterisiert dagegen die manufakturmäßige Teilung der Arbeit? Daß der Teilarbeiter keine Ware produziert.⁵⁸ Erst das gemeinsame Produkt der Teilarbeiter verwandelt sich in Ware.^{58a} Die Teilung der Arbeit im Innern der Gesellschaft ist vermittelt durch den Kauf und Verkauf der Produkte verschiedener Arbeitszweige, der Zusammenhang der Teilarbeiten in der Manufaktur durch den Verkauf verschiedener Arbeitskräfte an denselben Kapitalisten, der sie als kombinierte Arbeitskraft verwendet.

⁵⁸ „Es gibt aber nichts mehr, was man als den natürlichen Lohn der Arbeit eines einzelnen bezeichnen könnte. Jeder Arbeiter erzeugt nur einen Teil eines Ganzen, und da jeder Teil für sich allein ohne Wert oder Nutzen ist, gibt es nichts, was der Arbeiter nehmen und wovon er sagen könnte: Das ist mein Erzeugnis, das will ich für mich behalten.“ („Labour defended against the claims of Capital“, Lond. 1825, p. 25.) Der Verfasser dieser vorzüglichen Schrift ist der früher zitierte Th. Hodgskin.

^{58a} Note zur 2. Ausgabe. Dieser Unterschied zwischen gesellschaftlicher und manufakturmäßiger Teilung der Arbeit wurde den Yankees praktisch illustriert. Eine der während des Bürgerkriegs zu Washington neu ausgeheckten Steuern war die Akzise von 6% auf „alle industriellen Produkte“. Frage: Was ist ein industrielles Produkt? Antwort des Gesetzgebers: Ein Ding ist produziert, „wenn es gemacht ist“ (when it is made), und es ist gemacht, wenn für den Verkauf fertig. Nun ein Beispiel aus vielen. Manufakturen zu New York und Philadelphia hatten früher Regenschirme mit allem Zubehör „gemacht“. Da ein Regenschirm aber ein *Mixtum compositum*

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ucts of various separate industries, carried on independently in different places. They entered as separate commodities into the umbrella manufactory, where they were fitted together. The Yankees have given to articles thus fitted together, the name of "assembled articles," a name they deserve, for being an assemblage of taxes. Thus the umbrella "assembles," first, 6% on the price of each of its elements, and a further 6% on its own total price.

ganz heterogener Bestandteile, wurden letztere nach und nach zu Machwerken unabhängig voneinander und an verschiedenen Orten betriebener Geschäftszweige. Ihre Teilprodukte gingen nun als selbständige Waren ein in die Regenschirm-Manufaktur, welche sie nur noch in ein Ganzes zusammensetzt. Die Yankees haben derartige Artikel „assembled articles“ (versammelte Artikel) getauft, was sie namentlich verdienen als Sammelplätze von Steuern. So „versammelte“ der Regenschirm erstens 6% Akzise auf den Preis jedes seiner Elemente und hinwiederum 6% auf seinen eignen Gesamtpreis.

Next point: concentration versus dispersion of the means of production:

The division of labor in the workshop implies concentration of the means of production in the hands of one capitalist; the division of labor in society implies their dispersion among many independent producers of commodities.

Die manufakturmäßige Teilung der Arbeit unterstellt Konzentration der Produktionsmittel in der Hand eines Kapitalisten, die gesellschaftliche Teilung der Arbeit Zersplitterung der Produktionsmittel unter viele voneinander unabhängige Warenproduzenten.

Regulation a priori versus a posteriori:

While within the workshop, the iron law of proportionality subjects definite numbers of workmen to definite functions, in the society outside the workshop, chance and caprice have full play in distributing the producers and their means of production among the various branches of industry. The different spheres of production, it is true, constantly tend to an equilibrium: for, on the one hand, while each producer of a commodity is bound to produce a use-value, to satisfy a particular social want, and while the extent of these wants differs quantitatively, still there exists an inner relation which settles their proportions into a regular system, and that system one of spontaneous growth; and, on the other hand, the law of the value of commodities ultimately determines how much of its disposable working-time society can expend on each particular class of commodities.

Statt daß in der Manufaktur das eherner Gesetz der Verhältniszahl oder Proportionalität bestimmte Arbeitermassen unter Funktionen subsumiert, treiben Zufall und Willkür ihr buntes Spiel in der Verteilung der Warenproduzenten und ihrer Produktionsmittel unter die verschiedenen gesellschaftlichen Arbeitszweige. Zwar suchen sich die verschiedenen Produktionssphären beständig ins Gleichgewicht zu setzen, indem einerseits jeder Warenproduzent einen Gebrauchswert produzieren, also ein besonderes gesellschaftliches Bedürfnis befriedigen muß, der Umfang dieser Bedürfnisse aber quantitativ verschieden ist und ein inneres Band die verschiedenen Bedürfnismassen zu einem naturwüchsigen System verkettet; indem andererseits das Wertgesetz der Waren bestimmt, wieviel die Gesellschaft von ihrer ganzen disponiblen Arbeitszeit auf die Produktion jeder besondern Warenart verausgaben kann.

↑ Interesting side remark about the law of value!

But this constant tendency to equilibrium, of the various spheres of production, is exercised, only in the shape of a reaction against the constant upsetting of this equilibrium.

Aber diese beständige Tendenz der verschiedenen Produktionssphären, sich ins Gleichgewicht zu setzen, betätigt sich nur als Reaktion gegen die beständige Aufhebung die-

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The *a priori* system on which the division of labor, within the workshop, is regularly carried out, becomes in the division of labor within the society, an *a posteriori*, nature-imposed necessity, controlling the lawless caprice of the producers, and perceptible in the barometrical fluctuations of the market-prices.

Anarchy of market versus despotism in the manufactory.

Division of labor within the workshop implies the undisputed authority of the capitalist over men, that are but parts of a mechanism that belongs to him. The division of labor within the society brings into contact independent commodity-producers, who acknowledge no other authority but that of competition, of the coercion exerted by the pressure of their mutual interests; just as in the animal kingdom, the *bellum omnium contra omnes* more or less preserves the conditions of existence of every species.

ses Gleichgewichts. Die bei der Teilung der Arbeit im Innern der Werkstatt *a priori* und planmäßig befolgte Regel wirkt bei der Teilung der Arbeit im Innern der Gesellschaft nur *a posteriori* als innre, stumme, im Barometerwechsel der Marktpreise wahrnehmbare, die regellose Willkür der Warenproduzenten überwältigende Naturnotwendigkeit.

Die manufakturmäßige Teilung der Arbeit unterstellt die unbedingte Autorität des Kapitalisten über Menschen, die bloße Glieder eines ihm gehörigen Gesamtmechanismus bilden; die gesellschaftliche Teilung der Arbeit stellt unabhängige Warenproduzenten einander gegenüber, die keine andre Autorität anerkennen als die der Konkurrenz, den Zwang, den der Druck ihrer wechselseitigen Interessen auf sie ausübt, wie auch im Tierreich das *bellum omnium contra omnes* die Existenzbedingungen aller Arten mehr oder minder erhält.

↑ Marx compares capitalist competition with Darwinian survival of the fittest, and characterizes the Darwinian struggle for survival as “*bellum omnium contra omnium*.” This goes against modern literature emphasizing the role of co-operation in the survival of species.

Bourgeois apologists contradict themselves because they try to defend both on general grounds.

The same bourgeois mind which praises division of labor in the workshop, life-long annexation of the laborer to a partial operation, and his complete subjection to capital, as being an organisation of labor that increases its productiveness, that same bourgeois mind denounces with equal vigour every conscious attempt to socially control and regulate the process of production, as an inroad upon such sacred things as the rights of property, freedom and unrestricted play for the bent of the individual capitalist. It is very characteristic that the enthusiastic apologists of the factory system have nothing more damning to urge against a general organisation of the labor of society, than that it would turn all society into one immense factory.

Dasselbe bürgerliche Bewußtsein, das die manufakturmäßige Teilung der Arbeit, die lebenslängliche Annexation des Arbeiters an eine Detailverrichtung und die unbedingte Unterordnung der Teilarbeiter unter das Kapital als eine Organisation der Arbeit feiert, welche ihre Produktivkraft steigere, denunziert daher ebenso laut jede bewußte gesellschaftliche Kontrolle und Regelung des gesellschaftlichen Produktionsprozesses als einen Eingriff in die unverletzlichen Eigentumsrechte, Freiheit und sich selbst bestimmende „Genialität“ des individuellen Kapitalisten. Es ist sehr charakteristisch, daß die begeisterten Apologeten des Fabriksystems nichts Ärgres gegen jede allgemeine Organisation der gesellschaftlichen Arbeit zu sagen wissen, als daß sie die ganze Gesellschaft in eine Fabrik verwandeln würde.

↑ The same people who celebrate factories so much oppose social planning on the grounds

that it would turn society into a factory.

14.4.f. [Capitalist versus Pre-Capitalist Division of Labor]

In capitalism, the anarchy of the market and despotism in the manufactory condition each other (in the footnote Marx quotes himself saying this). In earlier modes of production, the social division of labor is not anarchic but on the contrary despotically subjected to a plan, while individual workshops remain small.

If, in a society with capitalist production, anarchy in the social division of labor and despotism in that of the workshop are mutual conditions the one of the other, we find, on the contrary, in those earlier forms of society in which the separation of trades has been spontaneously developed, then crystallised, and finally made permanent by law, on the one hand, a specimen of the organisation of the labor of society, in accordance with an approved and authoritative plan, and on the other, the entire exclusion of division of labor in the workshop, or at all events a mere dwarflike or sporadic and accidental development of the same.⁵⁹

⁵⁹ “On peut ... établir en règle générale, que moins l'autorité préside à la division du travail dans l'intérieur de la société, plus la division du travail se développe dans l'intérieur de l'atelier, et plus elle y est soumise à l'autorité d'un seul. Ainsi l'autorité dans l'atelier et celle dans la société, par rapport à la division du travail, sont en raison inverse l'une de l'autre.” (Karl Marx, “Misère,” etc., pp. 130–131.)

377:1/o Wenn die Anarchie der gesellschaftlichen und die Despotie der manufakturäßigen Arbeitsteilung einander in der Gesellschaft der kapitalistischen Produktionsweise bedingen, bieten dagegen frühere Gesellschaftsformen, worin die Besonderung der Gewerbe sich naturwüchsig entwickelt, dann kristallisiert und endlich gesetzlich befestigt hat, einerseits das Bild einer plan- und autoritätsmäßigen Organisation der gesellschaftlichen Arbeit, während sie anderseits die Teilung der Arbeit innerhalb der Werkstatt ganz ausschließen oder nur auf einem Zwergmaßstab oder nur sporadisch und zufällig entwickeln.⁵⁹

⁵⁹ „Man kann als allgemeine Regel aufstellen: Je weniger die Autorität der Teilung der Arbeit innerhalb der Gesellschaft vorsteht, desto mehr entwickelt sich die Arbeitsteilung im Innern der Werkstatt und um so mehr ist sie der Autorität eines einzelnen unterworfen. Danach steht die Autorität in der Werkstatt und die in der Gesellschaft, in bezug auf die Arbeitsteilung, im umgekehrten Verhältnis zueinander.“ (Karl Marx, l.c. p. 130, 131.)

Marx is going to illustrate this general statement by two examples: India, and the guild system. ↓ Long paragraph about the social division of labor in India.

Those small and extremely ancient Indian communities, some of which have continued down to this day, are based on possession in common of the land, on the blending of agriculture and handicrafts, and on an unalterable division of labor, which serves, whenever a new community is started, as a plan and scheme ready cut and dried. Occupying areas of from 100 up to several thousand acres, each forms a compact whole producing all it requires. The chief part of the products is destined for direct use by the community itself, and does not take the

378:1/o Jene uraltertümlichen, kleinen indischen Gemeinwesen z.B., die zum Teil noch fortexistieren, beruhen auf gemeinschaftlichem Besitz des Grund und Bodens, auf unmittelbarer Verbindung von Agrikultur und Handwerk und auf einer festen Teilung der Arbeit, die bei Anlage neuer Gemeinwesen als gegebener Plan und Grundriß dient. Sie bilden sich selbst genügende Produktionsganze, deren Produktionsgebiet von 100 bis auf einige 1000 Acres wechselt. Die Hauptmasse der Produkte wird für den unmittelbaren Selbstbedarf der

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form of a commodity. Hence, production here is independent of that division of labor brought about, in Indian society as a whole, by means of the exchange of commodities. It is the surplus alone that becomes a commodity, and a portion of even that, not until it has reached the hands of the State, into whose hands from time immemorial a certain quantity of these products has found its way in the shape of rent in kind. The constitution of these communities varies in different parts of India. In those of the simplest form, the land is tilled in common, and the produce divided among the members. At the same time, spinning and weaving are carried on in each family as subsidiary industries. Side by side with the masses thus occupied with one and the same work, we find the "chief inhabitant," who is judge, police, and tax-gatherer in one; the book-keeper, who keeps the accounts of the tillage and registers everything relating thereto; another official, who prosecutes criminals, protects strangers travelling through and escorts them to the next village; the boundary man, who guards the boundaries against neighbouring communities; the water-overseer, who distributes the water from the common tanks for irrigation; the Brahmin, who conducts the religious services; the schoolmaster, who on the sand teaches the children reading and writing; the calendar-Brahmin, or astrologer, who makes known the lucky or unlucky days for seed-time and harvest, and for every other kind of agricultural work; a smith and a carpenter, who make and repair all the agricultural implements; the potter, who makes all the pottery of the village; the barber, the washerman, who washes clothes, the silversmith, here and there the poet, who in some communities replaces the silversmith, in others the schoolmaster. This dozen of individuals is maintained at the expense of the whole community. If the population increases, a new community is founded, on the pattern of the old one, on unoccupied land. The whole mechanism discloses a systematic di-

Gemeinde produziert, nicht als Ware, und die Produktion selbst ist daher unabhängig von der durch Warenaustausch vermittelten Teilung der Arbeit im großen und ganzen der indischen Gesellschaft. Nur der Überschuß der Produkte verwandelt sich in Ware, zum Teil selbst wieder erst in der Hand des Staats, dem ein bestimmtes Quantum seit undenklichen Zeiten als Naturalrente zufließt. Verschiedne Teile Indiens besitzen verschiedne Formen des Gemeinwesens. In der einfachsten Form bebaut die Gemeinde das Land gemeinschaftlich und verteilt seine Produkte unter ihre Glieder, während jede Familie Spinnen, Weben usw. als häusliches Nebengewerb treibt. Neben dieser gleichartig beschäftigten Masse finden wir den „Haupteinwohner“, Richter, Polizei und Steuereinnahmer in einer Person; den Buchhalter, der die Rechnung über den Ackerbau führt und alles darauf Bezügliche katastrirt und registriert; einen Beamten, der Verbrecher verfolgt und fremde Reisende beschützt und von einem Dorf zum andren geleitet; den Grenzmann, der die Grenzen der Gemeinde gegen die Nachbargemeinden bewacht; den Wasseraufseher, der das Wasser aus den gemeinschaftlichen Wasserbehältern zu Ackerbauzwecken verteilt; den Braminen, der die Funktionen des religiösen Kultus verrichtet; den Schulmeister, der die Gemeindekinder im Sand schreiben und lesen lehrt; den Kalenderbraminen, der als Astrolog die Zeiten für Saat, Ernte und die guten und bösen Stunden für alle besondren Ackerbauarbeiten angibt; einen Schmied und einen Zimmermann, welche alle Ackerbauwerkzeuge verfertigen und ausbessern; den Töpfer, der alle Gefäße für das Dorf macht; den Barbier, den Wäscher für die Reinigung der Kleider, den Silberschmied, hier und da den Poeten, der in einigen Gemeinden den Silberschmied, in andren den Schulmeister ersetzt. Dies Dutzend Personen wird auf Kosten der ganzen Gemeinde erhalten. Wächst die Bevölkerung, so wird eine neue Gemeinde nach dem Muster der alten auf unbebautem Boden an-

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vision of labor; but a division like that in manufactures is impossible, since the smith and the carpenter, etc., find an unchanging market, and at the most there occur, according to the sizes of the villages, two or three of each, instead of one.⁶⁰

⁶⁰ Lieut.-Col. Mark Wilks: "Historical Sketches of the South of India." Lond., 1810–17, v. I., pp. 118–20. A good description of the various forms of the Indian communities is to be found in George Campbell's "Modern India." Lond., 1852.

gesiedelt. Der Gemeindemechanismus zeigt planmäßige Teilung der Arbeit, aber ihre manufakturmäßige Teilung ist unmöglich, indem der Markt für Schmied, Zimmermann usw. unverändert bleibt und höchstens, je nach dem Größenunterschied der Dörfer, statt eines Schmieds, Töpfers usw. ihrer zwei oder drei vorkommen.⁶⁰

⁶⁰ Lieut. Col. Mark Wilks, „Historical Skethes on the South of India“, Lond. 1810 bis 1817, v. I, p. 118–120. Eine gute Zusammenstellung der verschiedenen Formen des indischen Gemeinwesens findet man in George Campbells „Modern India“, London 1852.

Interpretation and extrapolation about the Asiatic mode of production:

The law that regulates the division of labor in the community acts with the irresistible authority of a law of Nature, at the same time that each individual artificer, the smith, the carpenter, and so on, conducts in his workshop all the operations of his handicraft in the traditional way, but independently, and without recognising any authority over him. The simplicity of the organisation for production in these self-sufficing communities that constantly reproduce themselves in the same form, and when accidentally destroyed, spring up again on the spot and with the same name,⁶¹ this simplicity supplies the key to the secret of the unchangeableness of Asiatic societies, an unchangeableness in such striking contrast with the constant dissolution and refounding of Asiatic States, and the never-ceasing changes of dynasty. The structure of the economic elements of society remains untouched by the storm-clouds of the political sky.

Das Gesetz, das die Teilung der Gemeindearbeit regelt, wirkt hier mit der unverbrüchlichen Autorität eines Naturgesetzes, während jeder besondrer Handwerker, wie Schmied usw., nach überlieferter Art, aber selbständig und ohne Anerkennung irgendeiner Autorität in seiner Werkstatt, alle zu seinem Fach gehörigen Operationen verrichtet. Der einfache produktive Organismus dieser selbstgenügenden Gemeinwesen, die sich beständig in derselben Form reproduzieren und, wenn zufällig zerstört, an demselben Ort, mit demselben Namen, wieder aufbauen,⁶¹ liefert den Schlüssel zum Geheimnis der Unveränderlichkeit asiatischer Gesellschaften, so auffallend kontrastiert durch die beständige Auflösung und Neubildung asiatischer Staaten und rastlosen Dynastenwechsel. Die Struktur der ökonomischen Grundelemente der Gesellschaft bleibt von den Stürmen der politischen Wolkenregion unberührt.

Unchangeability and resilience due to simplicity. This division of labor is like a natural law, and like the natural laws it does not affect the freedom of the producers.

⁶¹ "Under this simple form ... the inhabitants of the country have lived from time immemorial. The boundaries of the villages have been but seldom altered; and though the villages themselves have been sometimes injured, and even desolated by war, famine, and disease, the same name, the same limits, the same interests, and even the same families, have continued for ages. The inhabitants give themselves no trouble

⁶¹ „Unter dieser einfachen Form ... haben die Einwohner des Landes seit unvordenklichen Zeiten gelebt. Die Grenzen der Dorfgebiete wurden nur selten geändert; und obgleich die Dörfer wiederholt durch Krieg, Hungersnot und Seuchen heimgesucht, ja verwüstet wurden, haben derselbe Name, dieselben Grenzen, dieselben Interessen und selbst dieselben Familien sich durch Generationen fortgesetzt. Die Einwohner ließen

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about the breaking up and division of kingdoms; while the village remains entire, they care not to what power it is transferred, or to what sovereign it devolves; its Internal economy remains unchanged." (Th. Stamford Raffles, late Lieut. Gov. of Java: "The History of Java." Lond., 1817, Vol. I., p. 285.)

sich durch den Zusammenbruch und die Teilung von Königreichen nicht anfechten; solange das Dorf ungeteilt bleibt, ist es ihnen gleichgültig, an welche Macht es abgetreten wird oder welchem Herrscher es zufällt. Seine innere Wirtschaft bleibt unverändert." (Th. Stamford Raffles, late Lieut. Gov. of Java, „The History of Java“, Lond. 1817, v. I, p. 285.)

The discussion of the guilds begins with an elaboration of a remark made in :

The rules of the guilds, as I have said before, by limiting most strictly the number of apprentices and journeymen that a single master could employ, prevented him from becoming a capitalist. Moreover, he could not employ his journeymen in many other handicrafts than the one in which he was a master. The guilds zealously repelled every encroachment by the capital of merchants, the only form of free capital with which they came in contact. A merchant could buy every kind of commodity, but labor as a commodity he could not buy. He existed only on sufferance, as a dealer in the products of the handicrafts. If circumstances called for a further division of labor, the existing guilds split themselves up into varieties, or founded new guilds by the side of the old ones; all this, however, without concentrating various handicrafts in a single workshop. Hence, the guild organisation, however much it may have contributed by separating, isolating, and perfecting the handicrafts, to create the material conditions for the existence of manufacture, excluded division of labor in the workshop. On the whole, the laborer and his means of production remained closely united, like the snail with its shell, and thus there was wanting the principal basis of manufacture, the separation of the laborer from his means of production, and the conversion of these means into capital.

379:1/o Die Zunftgesetze, wie schon früher bemerkt, verhinderten planmäßig, durch äußerste Beschränkung der Gesellenzahl, die ein einzelner Zunftmeister beschäftigen durfte, seine Verwandlung in einen Kapitalisten. Ebenso konnte er Gesellen nur beschäftigen in dem ausschließlichen Handwerk, worin er selbst Meister war. Die Zunft wehrte eifersüchtig jeden Übergriff des Kaufmannskapitals ab, der einzig freien Form des Kapitals, die ihr gegenüberstand. Der Kaufmann konnte alle Waren kaufen, nur nicht die Arbeit als Ware. Er war nur geduldet als Verleger der Handwerksprodukte. Riefen äußere Umstände eine fortschreitende Teilung der Arbeit hervor, so zerspalteten sich bestehende Zünfte in Unterarten oder lagerten sich neue Zünfte neben die alten hin, jedoch ohne Zusammenfassung verschiedener Handwerke in einer Werkstatt. Die Zunftorganisation, so sehr ihre Besondrung, Isolierung und Ausbildung der Gewerbe zu den materiellen Existenzbedingungen der Manufakturperiode gehören, schloß daher die manufakturmäßige Teilung der Arbeit aus. Im großen und ganzen blieben der Arbeiter und seine Produktionsmittel miteinander verbunden wie die Schnecke mit dem Schneckenhaus, und so fehlte die erste Grundlage der Manufaktur, die Verselbständigung der Produktionsmittel als Kapital gegenüber dem Arbeiter.

It is not the laws of social division of labor, but the laws of capitalism which lead to manufactories.

While division of labor in society at large, whether such division be brought about or not by exchange of commodities, is common to economic formations of soci-

380:1 Während die Teilung der Arbeit im Ganzen einer Gesellschaft, ob vermittelt oder unvermittelt durch den Warenaustausch, den verschiedenartigsten ökonomi-

ety the most diverse, division of labor in the workshop, as practised by manufacture, is a special creation of the capitalist mode of production alone.

schen Gesellschaftsformationen angehört, ist die manufakturmäßige Teilung der Arbeit eine ganz spezifische Schöpfung der kapitalistischen Produktionsweise.

14.5. The Capitalist Character of Manufacture

This section shows how the manufactories are the realization, objectification, of the capitalistic relations of production, and where its limits lie, which prevent it from being the ultimate capitalistic mode of production.

Question 972 *What are the limits of manufactories based on division of labor, preventing them from becoming the ultimate capitalistic mode of production?*

14.5.a. [Increased Minimum and Faster Growth of Capital]

The introduction of the division of labor in the manufactories changes the capital-labor relations. These changes begin with the size of individual capitals:

An increased number of laborers under the control of one capitalist is the natural starting-point, as well of co-operation generally, as of the manufactory system in particular.

380:2/o Eine größere Arbeiteranzahl unter dem Kommando desselben Kapitals bildet den naturwüchsigen Ausgangspunkt, wie der Kooperation überhaupt, so der Manufaktur.

At the very beginning, the motivation of the capitalists to combine many workers was economic, not technological: the more workers the capitalist would employ, the more surplus-value he would get. Regarded as a phase in the development of technology, this point of departure was therefore spontaneous and unsystematic (*naturwüchsig*). But once manufacture has been developed, the increase in establishments becomes a technical necessity:

But the division of labor in manufacture makes this increase in the number of workmen a technical necessity.

Umgekehrt entwickelt die manufakturmäßige Teilung der Arbeit das Wachstum der angewandten Arbeiterzahl zur technischen Notwendigkeit.

It does so in two ways: (a) size itself is determined by technology, and (b) increases in size, in order to capture further savings, cannot occur gradually but in jumps, by doubling etc., so that the already existing division of labor can be reproduced.

The minimum number that any given capitalist is bound to employ is here prescribed by the previously established division of labor.

Das Arbeiterminimum, das ein einzelner Kapitalist anwenden muß, ist ihm jetzt durch die vorhandne Teilung der Arbeit vorgeschrieben.

This is not only a one-time requirement for the beginning of a new business, but continuing growth has to deal with a similar effect:

On the other hand, the advantages of further division are obtainable only by adding to the number of workmen, and this can be done only by adding multiples of the various detail groups.

Andrerseits sind die Vorteile weiterer Teilung bedingt durch weitere Vermehrung der Arbeiteranzahl, die nur noch in Vielfachen ausführbar.

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↑ I.e., this increase cannot be incremental but it requires doubling or tripling of the original scale, in order to maintain the present economies of the division of labor. This lumpiness comes from the necessity to cut the production process into human-sized chunks.

↓ Along with the number of workers also the constant capital must increase, even faster than the variable capital due to the increased productivity:

But an increase in the variable component of the capital employed necessitates an increase in its constant component, too, in the workshops, implements, etc., and, in particular, in the raw material, the call for which grows quicker than the number of workmen. The quantity of it consumed in a given time, by a given amount of labor, increases in the same ratio as does the productive power of that labor in consequence of its division. Hence, it is a law, based on the very nature of manufacture, that the minimum amount of capital, which is bound to be in the hands of each capitalist, must keep increasing; in other words, that the transformation into capital of the social means of production and subsistence must keep extending.⁶²

⁶² "It is not sufficient that the capital" (the writer should have said the necessary means of subsistence and of production) "required for the subdivision of handicrafts should be in readiness in the society: it must also be accumulated in the hands of the employers in sufficiently large quantities to enable them to conduct their operations on a large scale . . . The more the division increases, the more does the constant employment of a given number of laborers require a greater outlay of capital in tools, raw material, etc." (Storch: "Cours d'Econ. Polit." Paris Ed., t. I., pp. 250, 251.) "La concentration des instruments de production et la division du travail sont aussi inséparables l'une de l'autre que le sont, dans le régime politique, la concentration des pouvoirs publics et la division des intérêts." (Karl Marx, I.c., p. 134.)

Mit dem variablen muß aber auch der konstante Bestandteil des Kapitals wachsen, neben dem Umfang der gemeinsamen Produktionsbedingungen, wie Baulichkeiten, Öfen usw., namentlich auch und viel rascher als die Arbeiteranzahl, das Rohmaterial. Seine Masse, verzehrt in gegebener Zeit durch gegebenes Arbeitsquantum, nimmt in demselben Verhältnis zu wie die Produktivkraft der Arbeit infolge ihrer Teilung. Wachsender Minimalumfang von Kapital in der Hand der einzelnen Kapitalisten oder wachsende Verwandlung der gesellschaftlichen Lebensmittel und Produktionsmittel in Kapital ist also ein aus dem technischen Charakter der Manufaktur entspringendes Gesetz.⁶²

⁶² „Es genügt nicht, daß das zur Unterabteilung der Handwerke nötige Kapital“ (sollte heißen, die dazu nötigen Lebens- und Produktionsmittel) „sich in der Gesellschaft vorhanden vorfinde; es ist außerdem nötig, daß es in den Händen der Unternehmer in hinreichend beträchtlichen Massen akkumuliert sei, um sie zur Arbeit auf großer Stufenleiter zu befähigen . . . Je mehr die Teilung zunimmt, erheischt die beständige Beschäftigung einer selben Zahl von Arbeitern immer beträchtlicheres Kapital in Werkzeugen, Rohstoffen usw.“ (Storch, „Cours d'Écon. Polit.“, Pariser Ausg., t. I, p. 250, 251.) „Die Konzentration der Produktionsinstrumente und die Arbeitsteilung sind ebenso untrennbar voneinander wie auf dem Gebiete der Politik die Zentralisation der öffentlichen Gewalten und die Teilung der Privatinteressen.“ (Karl Marx, I.c. p. 134.)

↑ The end of the footnote brings an interesting analogy to politics.

14.5.b. [Changes Imposed on the Individual Laborer by the Division of Labor]

↓ As in simple co-operation, the productive forces springing from the combination of the laborers appear as productive forces of capital

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In manufacture, as well as in simple co-operation, the collective working organism is a form of existence of capital. The mechanism that is made up of numerous individual detail laborers belongs to the capitalist. Hence, the productive power resulting from a combination of labors appears as the productive power of capital.

381:1/o Wie in der einfachen Kooperation ist in der Manufaktur der funktionierende Arbeitskörper eine Existenzform des Kapitals. Der aus vielen individuellen Teilarbeitern zusammengesetzte gesellschaftliche Produktionsmechanismus gehört dem Kapitalisten. Die aus der Kombination der Arbeiten entspringende Produktivkraft erscheint daher als Produktivkraft des Kapitals.

The Moore-Aveling translation

“appears to be” is wrong.

Question 974 What does Marx 481/o mean by “the collective working organism is a form of existence of capital”?

↑ The productive powers not only *seem* to be springing from capital but their social form is such that socially they *count* as springing from capital. A detailed argument is given in .

↓ Creation of a hierarchy among the workers:

Manufacture proper not only subjects the previously independent workman to the discipline and command of capital, but, in addition, creates a hierarchic gradation of the workmen themselves.

Die eigentliche Manufaktur unterwirft nicht nur den früher selbständigen Arbeiter dem Kommando und der Disziplin des Kapitals, sondern schafft überdem eine hierarchische Gliederung unter den Arbeitern selbst.

↑ Now there is no longer only a hierarchy between capitalist and laborer (with discipline for the laborer) but also hierarchy among the laborers.

The changes within the working class go even further. ↓ Division of labor, unlike simple cooperation, turns the individual worker into a “crippled monstrosity.”

While simple co-operation leaves the mode of working by the individual for the most part unchanged, manufacture thoroughly revolutionizes it, and seizes labor-power by its very roots. It converts the laborer into a crippled monstrosity, by forcing his detail dexterity at the expense of a world of productive capabilities and instincts; just as in the States of La Plata they butcher a whole beast for the sake of his hide or his tallow.

Während die einfache Kooperation die Arbeitsweise der einzelnen im großen und ganzen unverändert läßt, revolutioniert die Manufaktur sie von Grund aus und ergreift die individuelle Arbeitskraft an ihrer Wurzel. Sie verkrüppelt den Arbeiter in eine Abnormität, indem sie sein Detailgeschick treibhausmäßig fördert durch Unterdrückung einer Welt von produktiven Trieben und Anlagen, wie man in den La-Plata-Staaten ein ganzes Tier schlachtet, um sein Fell oder seinen Talg zu erbeuten.

Interesting analogy to hunting in Argentina.

Not only is the detail work distributed to the different individuals, but the individual himself is made the automatic motor of a fractional operation,⁶³ and the absurd fable of Menenius Agrippa, which makes man a mere fragment of his own body, becomes

Die besondern Teilarbeiten werden nicht nur unter verschiedene Individuen verteilt, sondern das Individuum selbst wird geteilt, in das automatische Triebwerk einer Teilarbeit verwandelt⁶³ und die abgeschmackte Fabel des Menenius Agrippa verwirklicht,

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realised.⁶⁴

⁶³ Dugald Stewart calls manufacturing laborers “living automaton . . . employed in the details of the work.” (l.c., p. 318.)

⁶⁴ In corals, each individual is, in fact, the stomach of the whole group; but it supplies the group with nourishment, instead of, like the Roman patrician, withdrawing it.

die einen Menschen als bloßes Fragment seines eignen Körpers darstellt.⁶⁴

⁶³ Dugald Stewart nennt die Manufakturarbeiter „lebende Automaten . . ., die für Teilarbeiten verwandt werden“. (l.c. p. 318.)

⁶⁴ Bei den Korallen bildet jedes Individuum in der Tat den Magen für die ganze Gruppe. Es führt ihr aber Nahrungsstoff zu, statt wie der römische Patrizier ihn wegzuführen.

Question 976 *Explain how in manufacture, not only the labor is divided, but also the laborer is cut into pieces.*

⇓ Labor is no longer only separated from the means of production (a social condition), but labor itself has become unusable without capital (a matter of skills and technology).

If, at first, the workman sells his labor-power to capital, because the material means of producing a commodity fail him, now his very labor-power refuses its services unless it has been sold to capital.

Wenn der Arbeiter ursprünglich seine Arbeitskraft an das Kapital verkauft, weil ihm die materiellen Mittel zur Produktion einer Ware fehlen, versagt jetzt seine individuelle Arbeitskraft selbst ihren Dienst, sobald sie nicht an das Kapital verkauft wird.

⇓ That the group of laborers, instead of an individual laborer, is the subject of the labor process, has very tangible implications. (FIXME I have to fix the translation: environment is not the same as connection.)

Its functions can be exercised only in an environment that exists in the workshop of the capitalist after the sale. By nature unfitted to make anything independently, the manufacturing laborer develops productive activity as a mere appendage of the capitalist's workshop.⁶⁵ As the chosen people bore in their features the sign manual of Jehovah, so division of labor brands the manufacturing workman as the property of capital.

Sie funktioniert nur noch in einem Zusammenhang, der erst nach ihrem Verkauf existiert, in der Werkstatt des Kapitalisten. Seiner natürlichen Beschaffenheit nach unfähig, etwas Selbständiges zu machen, entwickelt der Manufakturarbeiter produktive Tätigkeit nur noch als Zubehör zur Werkstatt des Kapitalisten.⁶⁵ Wie dem ausgewählten Volk auf der Stirn geschrieben stand, daß es das Eigentum Jehovas, so drückt die Teilung der Arbeit dem Manufakturarbeiter einen Stempel auf, der ihn zum Eigentum des Kapitals brandmarkt.

⁶⁵ “L’ouvrier qui porte dans ses bras tout un métier, peut aller partout exercer son industrie et trouver des moyens de subsister: l’autre (the manufacturing laborer) n’est qu’un accessoire qui, séparé de ses confrères, n’a plus ni capacité, ni indépendance, et qui se trouve forcé d’accepter la loi qu’on juge à propos de lui imposer.” (Storch, l.c., Petersb. edit., 1815, t. I., p. 204.)

⁶⁵ „Der Arbeiter, der ein ganzes Handwerk beherrscht, kann überall arbeiten und seinen Unterhalt finden: der andere“ (der Manufakturarbeiter) „ist nur noch ein Zubehör und besitzt, von seinen Arbeitskollegen getrennt, weder Befähigung noch Unabhängigkeit und ist deshalb gezwungen, das Gesetz anzunehmen, das man für richtig hält, ihm aufzuerlegen.“ (Storch, l.c., édit. Petersb. 1815, t. I, p. 204.)

↑ The labor-power becomes really, not only economically, the property of capital because the individual laborer can not even *use* his labor-power otherwise. This is further developed

in the machinery chapter 433:1–435:2. This loss of use value also leads to a loss in exchange-value, lower wages.

Question 977 *How does the capitalistic division of labor brand the workman as the property of capital?*

The knowledge, the judgement, and the will, which, though in ever so small a degree, are practised by the independent peasant or handicraftsman, in the same way as the savage makes the whole art of war consist in the exercise of his personal cunning these faculties are now required only for the workshop as a whole. Intelligence in production expands in one direction, because it vanishes in many others. What is lost by the detail laborers, is concentrated in the capital that employs them.⁶⁶ It is a result of the division of labor in manufactures, that the laborer is brought face to face with the intellectual potencies of the material process of production, as the property of another, and as a ruling power. This separation begins in simple co-operation, where the capitalist represents to the single workman, the oneness and the will of the associated labor. It is developed in manufacture which cuts down the laborer into a detail laborer. It is completed in modern industry, which makes science a productive force distinct from labor and presses it into the service of capital.⁶⁷

⁶⁶ A. Ferguson, l.c., p. 281: “The former may have gained what the other has lost.”

⁶⁷ “The man of knowledge and the productive laborer come to be widely divided from each other, and knowledge, instead of remaining the handmaid of labor in the hand of the laborer to increase his productive powers . . . has almost everywhere arrayed itself against labor . . . systematically deluding and leading them (the laborers) astray in order to render their muscular powers entirely mechanical and obedient.” (W. Thompson: “An Inquiry into the Principles of the Distribution of Wealth.” London, 1824, p. 274.)

382:1 Die Kenntnisse, die Einsicht und der Wille, die der selbständige Bauer oder Handwerker, wenn auch auf kleinem Maßstab, entwickelt, wie der Wilde alle Kunst des Kriegs als persönliche List ausübt, sind jetzt nur noch für das Ganze der Werkstatt erheischt. Die geistigen Potenzen der Produktion erweitern ihren Maßstab auf der einen Seite, weil sie auf vielen Seiten verschwinden. Was die Teilarbeiter verlieren, konzentriert sich ihnen gegenüber im Kapital.⁶⁶ Es ist ein Produkt der manufakturmäßigen Teilung der Arbeit, ihnen die geistigen Potenzen des materiellen Produktionsprozesses als fremdes Eigentum und sie beherrschende Macht gegenüberzustellen. Dieser Scheidungsprozeß beginnt in der einfachen Kooperation, wo der Kapitalist den einzelnen Arbeitern gegenüber die Einheit und den Willen des gesellschaftlichen Arbeitskörpers vertritt. Er entwickelt sich in der Manufaktur, die den Arbeiter zum Teilarbeiter verstümmelt. Er vollendet sich in der großen Industrie, welche die Wissenschaft als selbständige Produktionspotenz von der Arbeit trennt und in den Dienst des Kapitals preßt.⁶⁷

⁶⁶ A. Ferguson, l.c. p. 281: „Der eine mag gewonnen haben, was der andere verloren hat.“

⁶⁷ „Der Mann des Wissens und der produktive Arbeiter sind weit voneinander getrennt, und die Wissenschaft, statt in der Hand des Arbeiters seine eignen Produktivkräfte für ihn selbst zu vermehren, hat sich fast überall ihm gegenübergestellt . . . Kenntnis wird ein Instrument, fähig, von der Arbeit getrennt und ihr entgegengesetzt zu werden.“ (W. Thompson, „An Inquiry into the Principles of the Distribution of Wealth“, London 1824, p. 274.)

↑ Increase of social at the expense of a decrease of the individual productive forces. The mental part of the production process, which is no longer required for the detail laborer but

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only for the aggregate laborer as a whole, are separated from the workers and appropriated by capital. This process will be completed in great industry.

⇓ How the division of labor *depends*, for its better functioning, on the ignorance of the workers.

In manufacture, in order to make the collective laborer, and through him capital, rich in social productive power, each laborer must be made poor in individual productive powers.

“Ignorance is the mother of industry as well as of superstition. Reflection and fancy are subject to err; but a habit of moving the hand or the foot is independent of either. Manufactures, accordingly, prosper most where the mind is least consulted, and where the workshop may ... be considered as an engine, the parts of which are men.”⁶⁸

As a matter of fact, some few manufacturers in the middle of the 18th century preferred, for certain operations that were trade secrets, to employ half-idiotic persons.⁶⁹

⁶⁸ A. Ferguson, l.c., p. 280.

⁶⁹ J. D. Tuckett: “A History of the Past and Present State of the Laboring Population.” Lond., 1846.

⇓ How the division of labor *causes* the crippling of body and mind. The quote of Garnier illustrates that the ruling class does not want to remedy this, since it depends on it.

“The understandings of the greater part of men,” says Adam Smith, “are necessarily formed by their ordinary employments. The man whose whole life is spent in performing a few simple operations ... has no occasion to exert his understanding ... He generally becomes as stupid and ignorant as it is possible for a human creature to become.”

After describing the dullness of the detail laborer he goes on:

“The uniformity of his stationary life naturally corrupts the courage of his mind ... It corrupts even the activity of his body and renders him incapable of exerting his strength with vigour and perseverance in any other employments than that to which he has been bred. His dexterity at his own particular trade seems in this manner to be acquired at the expense of his

383:1–3 In der Manufaktur ist die Bereicherung des Gesamtarbeiters und daher des Kapitals an gesellschaftlicher Produktivkraft bedingt durch die Verarmung des Arbeiters an individuellen Produktivkräften.

„Die Unwissenheit ist die Mutter der Industrie wie des Aberglaubens. Nachdenken und Einbildungskraft sind den Irrtum unterworfen; aber die Gewohnheit, den Fuß oder die Hand zu bewegen, hängt weder von dem einen noch von der andren ab. Manufakturen prosperieren also da am meisten, wo man am meisten sich des Geistes entschlägt, in der Art, daß die Werkstatt als eine Maschine betrachtet werden kann, deren Teile Menschen sind.“⁶⁸

In der Tat wandten einige Manufakturen in der Mitte des 18. Jahrhunderts für gewisse einfache Operationen, welche aber Fabrikgeheimnisse bildeten, mit Vorliebe halbe Idioten an.⁶⁹

⁶⁸ A. Ferguson, l.c. p. 280.

⁶⁹ J. D. Tuckett, „A History of the Past and Present State of the Labouring Population“, London 1846, v. I, p. 148.

383:4–6 „Der Geist der großen Mehrzahl der Menschen“, sagt A. Smith, „entwickelt sich notwendig aus und an ihren Alltagsverrichtungen. Ein Mensch, der sein ganzes Leben in der Verrichtung weniger einfacher Operationen verausgabt ... hat keine Gelegenheit, seinen Verstand zu üben ... Er wird im allgemeinen so stupid und unwissend, wie es für eine menschliche Kreatur möglich ist.“

Nachdem Smith den Stumpfsinn des Teilarbeiters geschildert, fährt er fort:

„Die Einförmigkeit seines stationären Lebens verdirbt natürlich auch den Mut seines Geistes ... Sie zerstört selbst die Energie seines Körpers und verunfähigt ihn, seine Kraft schwunghaft und ausdauernd anzuwenden, außer in der Detailbeschäftigung, wozu er herangezogen ist. Sein Geschick in seinem besondern Gewerke scheint so erworben auf Ko-

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intellectual, social, and martial virtues. But in every improved and civilised society, this is the state into which the laboring poor, that is, the great body of the people, must necessarily fall.”⁷⁰

⁷⁰ A. Smith: “Wealth of Nations,” Bk. v., ch. i, art. ii. Being a pupil of A. Ferguson who showed the disadvantageous effects of division of labor, Adam Smith was perfectly clear on this point. In the introduction to his work, where he *ex professo* praises division of labor, he indicates only in a cursory manner that it is the source of social inequalities. It is not till the 5th Book, on the Revenue of the State, that he reproduces Ferguson. In my “Misère de la Philosophie,” I have sufficiently explained the historical connexion between Ferguson, A. Smith, Lemontey, and Say, as regards their criticisms of Division of Labor, and have shown, for the first time, that Division of Labor as practised in manufactures, is a specific form of the capitalist mode of production.

For preventing the complete deterioration of the great mass of the people by division of labor, A. Smith recommends education of the people by the State, but prudently, and in homeopathic doses. G. Garnier, his French translator and commentator, who, under the first French Empire, quite naturally developed into a senator, quite as naturally opposes him on this point. Education of the masses, he urges, violates the first law of the division of labor, and with it

“our whole social system would be proscribed.” “Like all other divisions of labor,” he says, “that between hand labor and head labor⁷¹ is more pronounced and decided in proportion as society (he rightly uses this word, for capital, landed property and their State) becomes richer. This division of labor, like every other, is an effect of past, and a cause of future progress . . . ought the government then to work in opposition to this division of labor, and to hinder its natural course? Ought it to expend a part of the public money in the attempt to confound and blend together two classes of labor, which are striving after division and separation?”⁷²

sten seiner intellektuellen, sozialen und kriegerischen Tugenden. Aber in jeder industriellen und zivilisierten Gesellschaft ist dies der Zustand, worin der arbeitende Arme (the labouring poor), d.h. die große Masse des Volks notwendig verfallen muß.“⁷⁰

⁷⁰ A. Smith, „Wealth of Nations“, b. V, ch. I, art. II. Als Schüler A. Fergusons, der die nachteiligen Folgen der Teilung der Arbeit entwickelt hatte, war A. Smith über diesen Punkt durchaus klar. Im Eingang seines Werks, wo die Teilung der Arbeit *ex professo* gefeiert wird, deutet er sie nur vorübergehend als Quelle der gesellschaftlichen Ungleichheiten an. Erst im 5. Buch über das Staatseinkommen reproduziert er Ferguson. Ich habe in „Misère de la Philosophie“ das Nötige über das historische Verhältnis von Ferguson, A. Smith, Lemontey und Say in ihrer Kritik der Teilung der Arbeit gegeben und dort auch zuerst die manufakturmäßige Teilung der Arbeit als spezifische Form der kapitalistischen Produktionsweise dargestellt. (l.c. p. 122 sq.)

384:1–2 Um die aus der Teilung der Arbeit entspringende völlige Verkümmern der Volksmasse zu verhindern, empfiehlt A. Smith Volksunterricht von Staats wegen, wenn auch in vorsichtig homöopathischen Dosen. Konsequenter polemisiert dagegen sein französischer Übersetzer und Kommentator, G. Garnier, der sich unter dem ersten französischen Kaisertum naturgemäß zum Senator entpuppte. Volksunterricht verstoße wider die ersten Gesetze der Teilung der Arbeit und mit demselben

„proskribiere man unser ganzes Gesellschaftssystem“. „Wie alle andren Teilungen der Arbeit“, sagte er, „wird die zwischen Handarbeit und Verstandesarbeit⁷¹ ausgesprochner und entschiedner im Maße, wie die Gesellschaft“ (er wendet richtig diesen Ausdruck an für das Kapital, das Grundeigentum und ihren Staat) „reicher wird. Gleich jeder andren ist diese Teilung der Arbeit eine Wirkung vergangener und eine Ursache künftiger Fortschritte . . . Darf die Regierung denn dieser Teilung der Arbeit entgegenwirken und sie in ihrem naturgemäßen Gang aufhalten? Darf sie einen Teil der Staatseinnahme zum Versuch verwenden, zwei Klassen von Arbeit, die ihre Teilung und Trennung erstreben, zu verwirren und zu ver-

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⁷¹ Ferguson had already said, l.c., p. 281: “And thinking itself, in this age of separations, may become a peculiar craft.”

⁷² G. Garnier, vol. V. of his translation of A. Smith, pp. 4–5.

Concluding remarks pointing out the exploitative character of this kind of division of labor.

Some crippling of body and mind is inseparable even from division of labor in society as a whole. Since, however, manufacture carries this social separation of branches of labor much further, and also, by its peculiar division, attacks the individual at the very roots of his life, it is the first to afford the materials for, and to give a start to, industrial pathology.⁷³

Now a quote:

“To subdivide a man is to execute him, if he deserves the sentence, to assassinate him if he does not . . . The subdivision of labor is the assassination of a people.”⁷⁴

⁷³ Ramazzini, professor of practical medicine at Padua, published in 1713 his work “De morbis artificum,” which was translated into French 1781, reprinted 1841 in the “Encyclopédie des Sciences Médicales. 7me Dis. Auteurs Classiques.” The period of Modern Mechanical Industry has, of course, very much enlarged his catalogue of labor’s diseases. See “Hygiène physique et morale de l’ouvrier dans les grandes villes en général et dans la ville de Lyon en particulier. Par le Dr. A. L. Fonteret, Paris, 1858,” and “Die Krankheiten, welche verschiedenen Ständen, Altern und Geschlechtern eigenthümlich sind. 6 Vols. Ulm, 1860,” and others. In 1854 the Society of Arts appointed a Commission of Inquiry into industrial pathology. The list of documents collected by this commission is to be seen in the catalogue of the “Twickenham Economic Museum.” Very important are the official “Reports on Public Health.” See also Eduard Reich, M. D., “Ueber die Entartung des Menschen,” Erlangen, 1868.

⁷⁴ (D. Urquhart: “Familiar Words.” Lond.,

mischen?”⁷²

⁷¹ Ferguson sagt bereits l.c. p. 281: „Und das Denken selbst kann in diesem Zeitalter der Arbeitsteilungen zu einem besonderen Gewerbe werden.“

⁷² G. Garnier, t. V seiner Übersetzung, p. 4–5.

384:3–385:1 Eine gewisse geistige und körperliche Verkrüppelung ist unzertrennlich selbst von der Teilung der Arbeit im ganzen und großen der Gesellschaft. Da aber die Manufakturperiode diese gesellschaftliche Zerspaltung der Arbeitszweige viel weiter führt, andererseits erst mit der ihr eigentümlichen Teilung das Individuum an seiner Lebenswurzel ergreift, liefert sie auch zuerst das Material und den Anstoß zur industriellen Pathologie.⁷³

„Einen Menschen unterabteilen, heißt ihn hinrichten, wenn er das Todesurteil verdient, ihn meuchelmorden, wenn er es nicht verdient. Die Unterabteilung der Arbeit ist der Meuchelmord eines Volks.“⁷⁴

⁷³ Ramazzini, Professor der praktischen Medizin zu Padua, veröffentlichte 1713 sein Werk „De morbis artificum“, 1777 ins Französische übersetzt, wieder abgedruckt 1841 in der „Encyclopédie des Sciences Médicales. 7me Div. Auteurs Classiques“. Die Periode der großen Industrie hat seinen Katalog der Arbeiterkrankheiten natürlich sehr vermehrt. Siehe u.a. „Hygiène physique et morale de l’ouvrier dans les grandes villes en général, et dans la ville de Lyon en particulier“. Par le Dr. A. L. Fonteret, Paris 1858, und [R. H. Rohatzsch,] „Die Krankheiten, welche verschiedenen Ständen, Altern und Geschlechtern eigenthümlich sind“, 6 Bände, Ulm 1840. Im Jahre 1854 ernannte die Society of Arts eine Untersuchungskommission über industrielle Pathologie. Die Liste der von dieser Kommission gesammelten Dokumente findet man im Katalog des „Twickenham Economic Museum“. Sehr wichtig die offiziellen „Reports on Public Health“. Siehe auch Eduard Reich, M.D., „Ueber die Entartung des Menschen“, Erlangen 1868.

⁷⁴ „To subdivide a man is to execute him, if he

1855, p. 119.) Hegel held very heretical views on division of labor. In his “Rechtsphilosophie” he says: “By well educated men we understand in the first instance, those who can do everything that others do.”

deserves the sentence, to assassinate him, if he does not . . . the subdivision of labour is the assassination of a people.“ (D. Urquhart, „Familiar Words“, London 1855, p. 119.) Hegel hatte sehr ketzerische Ansichten über die Teilung der Arbeit. „Unter gebildeten Menschen kann man zunächst solche verstehen, die alles machen können, was andre tun“, sagt er in seiner Rechtsphilosophie.

14.5.c. [Division of Labor as a Means of Exploitation]

This is an insert which partly repeats things developed before. Characterization of division of labor in manufacture as a means of exploitation, contrast to earlier *social* division of labor.

⇓ Origin and persistence of manufacture.

Co-operation based on division of labor, in other words, manufacture, commences as a spontaneous formation. So soon as it attains some consistence and extension, it becomes the recognised methodical and systematic form of capitalist production.

385:2 Die auf Teilung der Arbeit beruhende Kooperation oder die Manufaktur ist in ihren Anfängen ein naturwüchsiges Gebild. Sobald sie einige Konsistenz und Breite des Daseins gewonnen, wird sie zur bewußten, planmäßigen und systematischen Form der kapitalistischen Produktionsweise.

⇑ From spontaneous to conscious, planned, and systematic.

The history of the manufactories strictly so called shows how their peculiar division of labor first acquires an appropriate form by experience, as it were behind the backs of the actors, and then, like the guild handicrafts, strives to hold fast to that form when once found, and here and there succeeds in keeping it for centuries. Any alteration in this form, except in trivial matters, is solely owing to a revolution in the instruments of labor.

Die Geschichte der eigentlichen Manufaktur zeigt, wie die ihr eigentümliche Teilung der Arbeit zunächst erfahrungsmäßig, gleichsam hinter dem Rücken der handelnden Personen, die sachgemäßen Formen gewinnt, dann aber, gleich dem zünftigen Handwerke, die einmal gefundene Form traditionell festzuhalten strebt und in einzelnen Fällen jahrhundertlang festhält. Ändert sich diese Form, so, außer in Nebendingen, immer nur infolge einer Revolution der Arbeitsinstrumente.

Instruments of labor are the disruptive ingredient.

Modern manufacture wherever it arises I do not here allude to modern industry based on machinery either finds the *disjecta membra poetarum* ready to hand, and only waiting to be collected together, as is the case in the manufacture of clothes in large towns, or it can easily apply the principle of division, simply by exclusively assigning the various operations of a handicraft (such as book-binding) to particular men. In such cases, a week's experience is enough to determine the pro-

Die moderne Manufaktur—ich spreche hier nicht von der auf Maschinerie beruhenden großen Industrie—findet entweder, wie z.B. die Kleidermanufaktur, in den großen Städten, wo sie entsteht, die *disjecta membra poetarum* bereits fertig vor und hat sie nur aus ihrer Zerstreuung zu sammeln, oder das Prinzip der Teilung liegt auf flacher Hand, indem einfach die verschiedenen Verrichtungen der handwerksmäßigen Produktion (z.B. beim Buchbinden) besondern Arbei-

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portion between the numbers of the hands necessary for the various functions.⁷⁵

tern ausschließlich angeeignet werden. Es kostet noch keine Woche Erfahrung, in solchen Fällen die Verhältniszahl zwischen den für jede Funktion nötigen Händen zu finden.⁷⁵

In other words, the capitalist's intellectual contribution is negligible.

⁷⁵ The simple belief in the inventive genius exercised a priori by the individual capitalist in division of labor, exists now-a-days only among German professors, of the stamp of Herr Roscher, who, to recompense the capitalist from whose Jovian head division of labor sprang ready formed, dedicates to him "various wages" (diverse Arbeitslöhne). The more or less extensive application of division of labor depends on length of purse, not on greatness of genius.

⁷⁵ Der gemüthliche Glaube an das Erfindungs-genie, das der einzelne Kapitalist in der Theilung der Arbeit a priori ausübe, findet sich nur noch bei deutschen Professoren, wie Herrn Roscher z.B., der dem Kapitalisten, aus dessen Jupiter-haupt die Theilung der Arbeit fertig hervorspringe, zum Dank „diverse Arbeitslöhne“ widmet. Die gröÙre oder geringre Anwendung der Theilung der Arbeit hängt von der Länge der Börse ab, nicht von der Größe des Genies.

⇓ Productive forces developed in manufacture are used for production of relative surplus-value, exploitation.

By decomposition of handicrafts, by specialisation of the instruments of labor, by the formation of detail laborers, and by grouping and combining the latter into a single mechanism, division of labor in manufacture creates a qualitative gradation, and a quantitative proportion in the social process of production; it consequently creates a definite organisation of the labor of society, and thereby develops at the same time new productive forces in the society. As a specific capitalist form of the social process of production—and under the given conditions, it could not develop under any other form than the capitalistic one—manufacture is but a particular method of begetting relative surplus-value, or of augmenting at the expense of the laborer the self-expansion of capital usually called social wealth, "Wealth of Nations," etc. It increases the social productive power of labor, not only for the benefit of the capitalist instead of for that of the laborer, but it does this by crippling the individual laborers. It creates new conditions for the lordship of capital over labor. If, therefore, on the one hand, it presents itself historically as a progress and as a necessary phase in the economic development of society, on the other hand, it is a refined and civilised method of exploitation.

386:1 Die manufakturmäßige Theilung der Arbeit schafft durch Analyse der handwerksmäßigen Tätigkeit, Spezifizierung der Arbeitsinstrumente, Bildung der Teilarbeiter, ihre Gruppierung und Kombination in einem Gesamtmechanismus die qualitative Gliederung und quantitative Proportionalität gesellschaftlicher Produktionsprozesse, also eine bestimmte Organisation gesellschaftlicher Arbeit und entwickelt damit zugleich neue, gesellschaftliche Produktivkraft der Arbeit. Als spezifisch kapitalistische Form des gesellschaftlichen Produktionsprozesses—und auf den vorgefunden Grundlagen konnte sie sich nicht anders als in der kapitalistischen Form entwickeln—ist sie nur eine besondere Methode, relativen Mehrwert zu erzeugen oder die Selbstverwertung des Kapitals—was man gesellschaftlichen Reichtum, „Wealth of Nations“ usw. nennt—auf Kosten der Arbeiter zu erhöhen. Sie entwickelt die gesellschaftliche Produktivkraft der Arbeit nicht nur für den Kapitalisten, statt für den Arbeiter, sondern durch die Verkrüppelung des individuellen Arbeiters. Sie produziert neue Bedingungen der Herrschaft des Kapitals über die Arbeit. Wenn sie daher einerseits als historischer Fortschritt und notwendiges Entwicklungsmoment im ökonomischen

mischen Bildungsprozeß der Gesellschaft erscheint, so andererseits als ein Mittel ziviler und raffinierter Exploitation.

Is Marx going to explain next what the alternative should be?

The period of the manufactories is also the origin of political economy:

Political Economy, which as an independent science, first sprang into being during the period of manufacture, views the social division of labor only from the standpoint of manufacture,⁷⁶ and sees in it only the means of producing more commodities with a given quantity of labor, and, consequently, of cheapening commodities and hurrying on the accumulation of capital.

⁷⁶ The older writers, like Petty and the anonymous author of "Advantages of the East India Trade," bring out the capitalist character of division of labor as applied in manufacture more than A. Smith does.

By contrast to the division of labor in the manufactories, the *social* division of labor in antiquity serves to improve the quality of product and capability of producer, not an instrument of exploitation!

In most strict contrast with this accentuation of quantity and exchange-value, is the attitude of the writers of classical antiquity, who hold exclusively by quality and use-value.⁷⁷ In consequence of the separation of the social branches of production, commodities are better made, the various bents and talents of men select a suitable field,⁷⁸ and without some restraint no important results can be obtained anywhere.⁷⁹ Hence both product and producer are improved by division of labor. If the growth of the quantity produced is occasionally mentioned, this is only done with reference to the greater abundance of use-values. There is not a word alluding to exchange-value or to the cheapening of commodities. This aspect, from the standpoint of use-value alone, is taken as well by Plato,⁸⁰ who treats division of labor as the foundation on which the division of society into classes is based, as by Xenophon,⁸¹ who with characteristic bourgeois instinct, approaches more nearly to division of labor within the workshop.

386:2/000 Die politische Ökonomie, die als eigne Wissenschaft erst in der Manufakturperiode aufkommt, betrachtet die gesellschaftliche Teilung der Arbeit überhaupt nur vom Standpunkt der manufakturmäßigen Teilung der Arbeit⁷⁶, als Mittel, mit demselben Quantum Arbeit mehr Ware zu produzieren, daher die Waren zu verwohlfeilern und die Akkumulation des Kapitals zu beschleunigen.

⁷⁶ Mehr als A. Smith fixieren ältere Schriftsteller, wie Petty, wie der anonyme Verfasser der „Advantages of the East-India Trade“ etc., den kapitalistischen Charakter der manufakturmäßigen Teilung der Arbeit.

Im strengsten Gegensatz zu dieser Akzentuierung der Quantität und des Tauschwerts halten sich die Schriftsteller des klassischen Altertums ausschließlich an Qualität und Gebrauchswert.⁷⁷ Infolge der Scheidung der gesellschaftlichen Produktionszweige werden die Waren besser gemacht, die verschiedenen Triebe und Talente der Menschen wählen sich entsprechende Wirkungssphären,⁷⁸ und ohne Beschränkung ist nirgendwo Bedeutendes zu leisten.⁷⁹ Also Produkt und Produzent werden verbessert durch die Teilung der Arbeit. Wird gelegentlich auch das Wachstum der Produktenmasse erwähnt, so nur mit Bezug auf die größere Fülle des Gebrauchswerts. Es wird mit keiner Silbe des Tauschwerts, der Verwohlfeilerung der Waren gedacht. Dieser Standpunkt des Gebrauchswerts herrscht sowohl bei Plato⁸⁰, der die Teilung der Arbeit als Grundlage der gesellschaftlichen Scheidung der Stände behandelt, als bei Xenophon⁸¹, der mit seinem charakteristisch bürgerlichen Instinkt schon der Teilung der Arbeit inner-

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Plato's Republic, in so far as division of labor is treated in it, as the formative principle of the State, is merely the Athenian idealisation of the Egyptian system of castes, Egypt having served as the model of an industrial country to many of his contemporaries also, amongst others to Isocrates,⁸² and it continued to have this importance to the Greeks of the Roman Empire.⁸³

⁷⁷ Amongst the moderns may be excepted a few writers of the 18th century, like Beccaria and James Harris, who with regard to division of labor almost entirely follow the ancients. Thus, Beccaria: "Ciascuno prova coll'esperienza, che applicando la mano e l'ingegno sempre allo stesso genere di opere e di prodotte, egli più facili, più abbondanti e migliori ne traca risultati, di quello che se ciascuno isolatamente le cose tutte a se necessarie soltanto facesse ... Dividendosi in tal maniera per la comune e privata utilità gli uomini in varie classi e condizioni." (Cesare Beccaria: "Elementi di Econ. Pubblica," ed. Custodi, Parte Moderna, t. xi, p. 29.) James Harris, afterwards Earl of Malmesbury, celebrated for the "Diaries" of his embassy at St. Petersburg, says in a note to his "Dialogue Concerning Happiness," Lond., 1741, reprinted afterwards in "Three Treatises, 3 Ed., Lond., 1772: "The whole argument to prove society natural (i.e., by division of employments) ... is taken from the second book of Plato's Republic."

⁷⁸ Thus, in the Odyssey xiv., 228, ἄλλος γὰρ τ' ἄλλοισιν ἄνθρωπος ἐπιτέρεται ἔργοις and Archilochus quoted by Sextus Empiricus ἄλλος ἄλλω ἐπ' ἔργῳ καρδίην ἰαίνεται in , [greek: ""].

⁷⁹ Πολλ' ἡπίστατο ἔργα, κακῶς δ' ἡπίστατο πάντα' Every Athenian considered himself superior as a producer of commodities to a Spartan; for the latter in time of war had men enough at his disposal but could not command money, as Thucydides makes Pericles say in the speech inciting the Athenians to the Peloponnesian war: "σωμασι τε ἐτοιμότεροι οἱ αὐτουργοὶ τῶν ἀνθρώπων ἢ χρήμασι πολεμεῖν" (Thuc.: Bk I. para. 141.) Nevertheless, even with regard to material production, αὐταρχεία, as opposed to

halb einer Werkstatt näher rückt. Platos Republik, soweit in ihr die Teilung der Arbeit als das gestaltende Prinzip des Staats entwickelt wird, ist nur atheniensische Idealisierung des ägyptischen Kastenwesens, wie Ägypten als industrielles Musterland auch andren seiner Zeitgenossen gilt, z.B. dem Isokrates⁸², und diese Bedeutung selbst noch für die Griechen der römischen Kaiserzeit behielt.⁸³

⁷⁷ Ausnahme unter den Modernen bilden einige Schriftsteller des 18. Jahrhunderts, die in bezug auf Teilung der Arbeit fast nur den Alten nachsprechen, wie Beccaria und James Harris. So Beccaria: „Jedem bewiest seine eigne Erfahrung, daß, wenn man Hand und Geist immer derselben Art von Arbeiten und Produkten zuwendet, man diese leichter, reichlicher und besser herstellt, als wenn jeder einzeln für sich das, was er benötigt, herstellen würde ... Auf diese Weise teilen sich die Menschen zum Nutzen der Allgemeinheit und zu ihrem eignen Vorteil in verschiedene Klassen und Stände.“ (Cesare Beccaria, „Elementi di Econ. Pubblica“, ed. Custodi, Part. Moderna, t. XI, p. 28.) James Harris, später Earl of Malmesbury, berührt durch die „Diaries“ über seine Gesandtschaft in Petersburg, sagt selbst in einer Note zu seinem „Dialogue concerning Happiness“, London 1741, später wieder abgedruckt in „Three Treatises etc.“, 3. ed., Lond. 1772: „Der ganze Beweis dafür, daß die Gesellschaft etwas Natürliches ist“ (nämlich durch die „Teilung der Beschäftigungen“), „ist dem zweiten Buch von Platos „Republik“ entnommen.“

⁷⁸ So in der Odyssee, XIV, 228: „Denn ein andrer Mann ergötzt sich auch an andren Arbeiten“ und Archilochus beim Sextus Empiricus: „Jeder erquickt seinen Sinn bei andrer Arbeit.“

⁷⁹ „Πολλ' ἡπίστατο ἔργα, κακῶς δ' ἡπίστατο πάντα“—Der Athener fühlte sich als Warenproduzent dem Spartaner überlegen, weil dieser im Krieg wohl über Menschen, nicht aber über Geld verfügen könne, wie Thukysides den Perikles sagen läßt in der Rede, worin er die Athener zum Peloponnesischen Krieg aufstachelt: „Mit ihren Körpern Krieg zu führen sind die Selbstwirtschaftenden eher bereit als mit Geld.“ (Thuk., I. I, c. 141.) Dennoch blieb ihr Ideal, auch in der materiellen Produktion, die

division of labor remained their ideal, 'παρ' ὧν γὰρ τὸ, εὖ, παρὰ τούτων καὶ τὸ αὐταρκες It should be mentioned here that at the date of the fall of the 30 Tyrants there were still not 5,000 Athenians without landed property.

⁸⁰ With Plato, division of labor within the community is a development from the multifarious requirements, and the limited capacities of individuals. The main point with him is, that the laborer must adapt himself to the work, not the work to the laborer; which latter is unavoidable, if he carries on several trades at once, thus making one or the other of them subordinate. Οὐ γὰρ ἐθέλει τὸ πραττόμενον τὴν τοῦ πράττοντος σχολὴν περιμένειν, ἀλλ' ἀνάγκη τὸν πράττοντα τῷ πραττομένῳ ἐπακολουθεῖν μὴ ἐν παρέργου μέρει. Ἐκ δὴ τούτων πλείω τε ἕκαστα γίγνεται καὶ καλλιον καὶ ῥᾶον, ὅταν εἷς ἐν κατὰ φύσιν καὶ ἐν καιρῷ σχολὴν τῶν ἄλλων ἄγων, πράττη. (Rep. I. 2. Ed. Baiter, Orelli, etc.) So in Thucydides, I.c., c. 142: "Seafaring is an art like any other, and cannot, as circumstances require, be carried on as a subsidiary occupation; nay, other subsidiary occupations cannot be carried on alongside of this one." If the work, says Plato, has to wait for the laborer, the critical point in the process is missed and the article spoiled, 'ἔργου κακρόν, διόλλυται' The same Platonic idea is found recurring in the protest of the English bleachers against the clause in the Factory Act that provides fixed mealtimes for all operatives. Their business cannot wait the convenience of the workmen, for "in the various operations of singeing, washing, bleaching, mangling, calendering, and dyeing, none of them can be stopped at a given moment without risk of damage . . . to enforce the same dinner hour for all the workpeople might occasionally subject valuable goods to the risk of danger by incomplete operations." *Le platonisme où va-t-il se nicher!*

⁸¹ Xenophon says, it is not only an honour to receive food from the table of the King of Persia, but such food is much tastier than other food. "And there is nothing wonderful in this, for as the other arts are brought to special perfection in

αὐταρχεία, die der Teilung der Arbeit gegenübersteht, „denn bei diesen gibt es Wohlstand, bei jenen aber auch die Unabhängigkeit“. Man muß dabei erwägen, daß es noch zur Zeit des Sturzes der 30 Tyrannen keine 5000 Athener ohne Grundeigentum gab.

⁸⁰ Plato entwickelt die Teilung der Arbeit innerhalb des Gemeinwesens aus der Vielseitigkeit der Bedürfnisse und der Einseitigkeit der Anlagen der Individuen. Haupt Gesichtspunkt bei ihm, daß der Arbeiter sich nach dem Werk richten müsse, nicht das Werk nach dem Arbeiter, was unvermeidlich, wenn er verschiedene Künste zugleich, also eine oder die andre als Nebenwerk treibe. „Denn die Arbeit will nicht warten auf die freie Zeit dessen, der sie macht, sondern der Arbeiter muß sich an die Arbeit halten, aber nicht in leichtfertiger Weise.—Dies ist notwendig.—Daraus folgt also, daß man mehr von allem verfertigt und sowohl schöner als auch leichter, wenn einer nur eine Sache macht, seiner natürlichen Begabung gemäß und zur richtigen Zeit, frei von andern Geschäften.“ („De Republica“, II, 2. ed., Baiter, Orelli etc.) Ähnlich bei Thukydides, I.c. c. 142: „Das Seewesen ist eine Kunst so sehr wie irgend etwas andres und kann nicht bei etwa vorkommenden Fällen als Nebenwerk betrieben werden, sondern vielmehr nichts andres neben ihm als Nebenwerk.“ Muß das Werk, sagt Plato, auf den Arbeiter warten, so wird oft der kritische Zeitpunkt der Produktion verpaßt und das Machwerk verdorben, „ἔργου κακρόν διόλλυται“. Dieselbe platonische Idee findet man wieder im Protest der englischen Bleichereibesitzer gegen die Klausel des Fabrikakts, die eine bestimmte Eßstunde für alle Arbeiter festsetzt. Ihr Geschäft könne sich nicht nach den Arbeitern richten, denn „von den verschiedenen Operationen des Absengens, Waschens, Bleichens, Mangels, Pressens und Färbens kann keine in einem bestimmten Augenblick ohne Gefahr der Schädigung abgebrochen werden . . . Das Erzwingen derselben Essensstunde für alle Arbeiter kann gelegentlich wertvolle Güter dadurch in Gefahr bringen, daß der Arbeitsprozeß nicht beendet wird.“ *Le platonisme où va-t-il se nicher!*

⁸¹ Xenophon erzählt, es sei nicht nur ehrenvoll, Speisen von der Tafel des Perserkönigs zu erhalten, sondern diese Speisen seien auch viel schmackhafter als andre. „Und dies ist nichts Wunderbares, denn wie die übrigen Künste in

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the great towns, so the royal food is prepared in a special way. For in the small towns the same man makes bedsteads, doors, ploughs, and tables: often, too, he builds houses into the bargain, and is quite content if he finds custom sufficient for his sustenance. It is altogether impossible for a man who does so many things to do them all well. But in the great towns, where each can find many buyers, one trade is sufficient to maintain the man who carries it on. Nay, there is often not even need of one complete trade, but one man makes shoes for men, another for women. Here and there one man gets a living by sewing, another by cutting out shoes; one does nothing but cut out clothes, another nothing but sew the pieces together. It follows necessarily then, that he who does the simplest kind of work, undoubtedly does it better than anyone else. So it is with the art of cooking.” (Xen. Cyrop. I. viii., c. 2.) Xenophon here lays stress exclusively upon the excellence to be attained in use-value, although he well knows that the gradations of the division of labor depend on the extent of the market.

⁸² He (Busiris) divided them all into special castes . . . commanded that the same individuals should always carry on the same trade, for he knew that they who change their occupations become skilled in none; but that those who constantly stick to one occupation bring it to the highest perfection. In truth, we shall also find that in relation to the arts and handicrafts, they have outstripped their rivals more than a master does a bungler; and the contrivances for maintaining the monarchy and the other institutions of their State are so admirable that the most celebrated philosophers who treat of this subject praise the constitution of the Egyptian State above all others. (Isocrates, Busiris, c. 8.)

⁸³ Cf. Diodorus Siculus.

den großen Städten besonders vervollkommen sind, ebenso werden die königlichen Speisen ganz eigens zubereitet. Denn in den kleinen Städten macht derselbe Bettstelle, Türe, Pflug, Tisch; oft baut er obendrein noch Häuser und ist zufrieden, wenn er selbst so eine für seinen Unterhalt ausreichende Kundschaft findet. Es ist rein unmöglich, daß ein Mensch, der so vielerlei treibt, alles gut mache. In den großen Städten aber, wo jeder einzelne viele Käufer findet, genügt auch ein Handwerk, um seinen Mann zu nähren. Ja oft gehört dazu nicht einmal ein ganzes Handwerk, sondern der eine macht Mannsschuhe, der andre Weiberschuhe. Hier und da lebt einer bloß vom Nähen, der andre vom Zuschneiden der Schuhe; der eine schneidet bloß Kleider zu, der andre setzt die Stücke nur zusammen. Notwendig ist es nun, daß der Verrichter der einfachsten Arbeit sie unbedingt auch am besten macht. Ebenso steht's mit der Kochkunst.“ (Xen., „Cyrop.“, I. VIII, c. 2.) Die zu erzielende Güte des Gebrauchswerts wird hier ausschließlich fixiert, obgleich schon Xenophon die Stufenleiter der Arbeitsteilung vom Umfang des Markts abhängig weiß.

⁸² „Er“ (Busiris) „teilte alle in besondere Kasten . . . befahl, daß immer die nämlichen die gleichen Geschäfte treiben sollten, weil er wußte, daß die, welche mit ihren Beschäftigungen wechseln, in keinem Geschäft gründlich werden; die aber, welche beständig bei denselben Beschäftigungen bleiben, jedes aufs vollendetste zustande bringen. Wirklich werden wir auch finden, daß sie in Beziehung auf Künste und Gewerbe ihre Rivalen mehr übertroffen haben als sonst der Meister den Stümper und in Beziehung auf die Einrichtung, wodurch sie die Königsherrschaft und übrige Staatsverfassung erhalten, so vortrefflich sind, daß die berühmten Philosophen, welche darüber zu sprechen unternehmen, die Staatsverfassung Ägyptens vor andren lobten.“ (Isokr., „Busiris“, c. 8.)

⁸³ cf. Diod. Sic.

14.5.d. [Limitations of Division of Labor from Point of View of Capital]

Division of labor has limitations which do not yet make it the most adequate form of capitalistic production, because it is still too much built on the basis of the earlier mode of production.

↓ Laborer: Since the skill of the laborer is still the basis of manufacture, resistance and

insubordination of the skilled laborers:

During the period of the manufactories proper, i.e., the period during which manufactories are the predominant form taken by capitalist production, many obstacles to the full development of the peculiar tendencies of manufacture are encountered. Although manufacture creates, as we have already seen, a simple separation of the laborers into skilled and unskilled, simultaneously with their hierarchic arrangement in classes, yet the number of the unskilled laborers, owing to the preponderating influence of the skilled, remains very limited. Although it adapts the detail operations to the various degrees of maturity, strength, and development of the living instruments of labor, thus conducing to exploitation of women and children, yet this tendency as a whole is wrecked on the habits and the resistance of the male laborers. Although the splitting up of handicrafts lowers the cost of forming the workman, and thereby lowers his value, yet for the more difficult detail work, a longer apprenticeship is necessary, and, even where it would be superfluous, is jealously insisted upon by the workmen. In England, for instance, we find the laws of apprenticeship, with their seven years' probation, in full force down to the end of the manufacturing period; and they are not thrown on one side till the advent of Modern Industry. Since handicraft skill is the foundation of manufacture, and since the mechanism of manufacture as a whole possesses no material skeleton independent of the laborers themselves, capital is constantly compelled to wrestle with the insubordination of the workmen.

↓ The following quote from Ure is testimony to these struggles:

"By the infirmity of human nature," says friend Ure, "it happens that the more skilful the workman, the more self-willed and intractable he is apt to become, and of course the less fit a component of a mechanical system in which ... he may do great damage to the whole."⁸⁴

⁸⁴ Ure, l.c., p. 20.

389:1–2 Während der eigentlichen Manufakturperiode, d.h. der Periode, worin die Manufaktur die herrschende Form der kapitalistischen Produktionsweise, stößt die volle Ausführung ihrer eignen Tendenzen auf vielseitige Hindernisse. Obgleich sie, wie wir sahen, neben der hierarchischen Gliederung der Arbeiter eine einfache Scheidung zwischen geschickten und ungeschickten Arbeitern schafft, bleibt die Zahl der letzteren durch den überwiegenden Einfluß der ersten sehr beschränkt. Obgleich sie die Sonderoperationen dem verschiedenen Grad von Reife, Kraft und Entwicklung ihrer lebendigen Arbeitsorgane anpaßt und daher zu produktiver Ausbeutung von Weibern und Kindern drängt, scheitert diese Tendenz im großen und ganzen an den Gewohnheiten und dem Widerstand der männlichen Arbeiter. Obgleich die Zersetzung der handwerksmäßigen Tätigkeit die Bildungskosten und daher den Wert der Arbeiter senkt, bleibt für schwierigere Detailarbeit eine längere Erlernungszeit nötig und wird auch da, wo sie vom Überfluß, eifersüchtig von den Arbeitern aufrechterhalten. Wir finden z.B. in England die laws of apprenticeship mit ihrer siebenjährigen Lernzeit bis zum Ende der Manufakturperiode in Vollkraft und erst von der großen Industrie über Haufen geworfen. Da das Handwerksge-
schick die Grundlage der Manufaktur bleibt und der in ihr funktionierende Gesamtmechanismus kein von den Arbeitern selbst unabhängiges objektives Skelett besitzt, ringt das Kapital beständig mit der Insubordination der Arbeiter.

„Die Schwäche der menschlichen Natur“, ruft Freund Ure aus, „ist so groß, daß der Arbeiter, je geschickter, desto eigenwilliger und schwieriger zu behandeln wird und folglich dem Gesamtmechanismus durch seine rappelköpfigen Launen schweren Schaden zufügt.“⁸⁴

⁸⁴ Ure, l.c. p. 20.

14. Division of Labor and Manufactories

Hence throughout the whole manufacturing period there runs the complaint of want of discipline among the workmen.⁸⁵ And had we not the testimony of contemporary writers, the simple facts, that during the period between the 16th century and the epoch of Modern Industry, capital failed to become the master of the whole disposable working-time of the manufacturing laborers, that manufactures are short-lived, and change their locality from one country to another with the emigrating or immigrating workmen, these facts would speak volumes. "Order must in one way or another be established," exclaims in 1770 the oft-cited author of the "Essay on Trade and Commerce." "Order," re-echoes Dr. Andrew Ure 66 years later, "Order" was wanting in manufacture based on "the scholastic dogma of division of labor," and "Arkwright created order."

390:1 Durch die ganze Manufakturperiode läuft daher die Klage über den Disziplinmangel der Arbeiter.⁸⁵ Und hätten wir nicht die Zeugnisse gleichzeitiger Schriftsteller, die einfachen Tatsachen, daß es vom 16. Jahrhundert bis zur Epoche der großen Industrie dem Kapital mißlingt, sich der ganzen disponiblen Arbeitszeit der Manufakturarbeiter zu bemächtigen, daß die Manufakturen kurzlebig sind und mit der Ein- oder Auswanderung der Arbeiter ihren Sitz in dem einen Land verlassen und in dem andren aufschlagen, würden Bibliotheken sprechen. „Ordnung muß auf die eine oder die andre Weise gestiftet werden“, ruft 1770 der wiederholt zitierte Verfasser des „Essay on Trade and Commerce“. Ordnung, hallt es 66 Jahre später zurück aus dem Mund des Dr. Andrew Ure, „Ordnung“ fehlte in der auf „dem scholastischen Dogma der Arbeit“ beruhenden Manufaktur, und „Arkwright schuf die Ordnung“.

Richard Arkwright, 1732–1792, inventor of spinning and carding machines, is often considered the founder of the modern factory system.

⁸⁵ This is more the case in England than in France, and more in France than in Holland.

⁸⁵ Das im Text Gesagte gilt viel mehr für England als für Frankreich und mehr für Frankreich als Holland.

Question 978 *Why is the manufacture based on the division of labor not yet the best form for capital to exploit labor? Why were the laborers in the manufactures rebellious?*

⇓ Technical basis too narrow to seize all production.

At the same time manufacture was unable, either to seize upon the production of society to its full extent, or to revolutionise that production to its very core. It towered up as an economic work of art, on the broad foundation of the town handicrafts, and of the rural domestic industries.

390:2 Zugleich konnte die Manufaktur die gesellschaftliche Produktion weder in ihrem ganzen Umfang ergreifen noch in ihrer Tiefe umwälzen. Sie gipfelte als ökonomisches Kunstwerk auf der breiten Grundlage des städtischen Handwerks und der ländlich häuslichen Industrie.

No mining, no heavy industry. Did blacksmiths work in manufactories?

At a given stage in its development, the narrow technical basis on which manufacture rested, came into conflict with requirements of production that were created by manufacture itself.

Ihre eigne enge technische Basis trat auf einem gewissen Entwicklungsgrad mit den von ihr selbst geschaffnen Produktionsbedürfnissen in Widerspruch.

But manufacture itself creates the way out of this impasse by producing—machinery.

One of its most finished creations was the workshop for the production of the instru-

390:3–5 Eins ihrer vollendetsten Gebilde war die Werkstatt zur Produktion der

14.5. The Capitalist Character of Manufacture

ments of labor themselves, including especially the complicated mechanical apparatus then already employed.

A machine-factory, says Ure, “displayed the division of labor in manifold gradations the file, the drill, the lathe, having each its different workman in the order of skill.” (p. 21.)

This workshop, the product of the division of labor in manufacture, produced in its turn—machines. It is they that sweep away the handicraftsman’s work as the regulating principle of social production.

Machinery has some benefits for laborers and for the capitalists.

Thus, on the one hand, the technical reason for the life-long annexation of the workman to a detail function is removed. On the other hand, the fetters that this same principle laid on the dominion of capital, fall away.

Arbeitsinstrumente selbst, und namentlich auch der bereits angewandten komplizierten mechanischen Apparate.

„Ein solches Atelier“, sagt Ure, „bot dem Auge die Teilung der Arbeit in ihren mannigfachen Abstufungen. Bohrer, Meißel, Drechselbank hatten jede ihre eignen Arbeiter, hierarchisch gegliedert nach dem Grad ihrer Geschicklichkeit.“

Dies Produkt der manufakturmäßigen Teilung der Arbeit produzierte seinerseits—Maschinen. Sie heben die handwerksmäßige Tätigkeit als das regelnde Prinzip der gesellschaftlichen Produktion auf.

So wird einerseits der technische Grund der lebenslangen Annexation des Arbeiters an eine Teilfunktion weggeräumt. Andererseits fallen die Schranken, welche dasselbe Prinzip der Herrschaft des Kapitals noch auferlegte.

Question 979 *What is specific capitalistic about the division of labor in manufacture?*

This, of course, is a fitting transition to the next chapter.

15. Machinery and Modern Industry

15.1. The Development of Machinery

The first long paragraph is an introduction to the whole chapter, not just the first section:

374:1–3 John Stuart Mill says in his “Principles of Political Economy”:

“It is questionable, if all the mechanical inventions yet made have lightened the day’s toil of any human being.”⁸⁶

391:1–3 John Stuart Mill sagt in seinen „Prinzipien der politischen Ökonomie“:

„Es ist fraglich, ob alle bisher gemachten mechanischen Erfindungen die Tagesmühe irgendeines menschlichen Wesens erleichtert haben.“⁸⁶

It is not the purpose of chapter Fifteen to decide whether machines help lighten the day’s work for any human being. On the contrary, according to Marx this is the wrong question to ask. Machines are wonderful labor-saving devices. But this does not mean they were introduced for the purpose of saving labor for people. Instead, they were introduced in order to increase exploitation.

Marx’s critique of Mill is twofold. (1) In the footnote ↓, he re-formulates the aphorism in order to add the class dimension which Mill had left out:

⁸⁶ Mill should have said, “OF ANY HUMAN BEING NOT FED BY OTHER PEOPLE’S LABOR,” for, without doubt, machinery has greatly increased the number of well-to-do idlers.

⁸⁶ „It is questionable, if all the mechanical inventions yet made have lightened the day’s toil of any human being.“ Mill hätte sagen sollen, „of any human being not fed by other people’s labor“, denn die Maschinerie hat unstreitig die Zahl der vornehmen Müßiggänger sehr vermehrt.

↑ Yes machines save labor, but not for the machine operators. Marx takes it as a fact that machinery increases the number of “well-to-do idlers”; more about this in 448:1 at the end of section 15.6.

↓ (2) In the main text, Marx criticizes Mill for asking the wrong question:

That is, however, by no means the aim of the capitalistic application of machinery. Like every other increase in the productiveness of labour, the purpose of machinery is to cheapen commodities, and, by shortening that portion of the working-day, in which the laborer works for himself, to lengthen the other portion that he gives, without an equivalent, to the capitalist.

Solches ist jedoch auch keineswegs der Zweck der kapitalistisch verwandten Maschinerie. Gleich jeder andren Entwicklung der Produktivkraft der Arbeit soll sie Waren verwohlfeilern und den Teil des Arbeitstags, den der Arbeiter für sich selbst braucht, verkürzen, um den andren Teil seines Arbeitstags, den er dem Kapitalisten umsonst gibt, zu verlängern.

↑ Marx names two purposes for the development of the productive powers: (1) to “cheapen” the commodities and (2) to increase surplus-value. Two remarks are necessary here.

(a) Marx does *not* say that the purpose is the increase in surplus-value, with the cheapening of commodities being the means to satisfy this purpose. Instead he places these two goals side by side. Both goals can be seen as the implication of value being an absence:

- It either has to be turned into a presence by absorbing living labor

- or it has to efface itself by quantitative diminution, i.e., labor-saving technical progress.

(b) Marx does not say the purpose of productivity increases is an increase in surplus-value, but he says this purpose is an increase in *relative* surplus-value. Does he imply with this that the capitalist have made the cheapening of the means of subsistence for the workers their explicit goal when they introduce technical progress? Presumably not, Marx refers here to his own analysis in chapter Twelve, 323:1/o: he knows that the competitive introduction of technical innovation increases relative surplus-value; the capitalists themselves do not have to know this.

↓ The production process of use-values in capitalism is at the same time the process of creating surplus-value. Clearly, machines are a means of production, i.e., they assist in the production of use-values. The above abbreviated argument showed that machines are also a means of production of surplus-value:

In short, it is a means for producing surplus-value.

Sie ist Mittel zur Produktion von Mehrwert.

↑ This must be understood not only in the “weak” sense that, since machines aid in production of use-values, and production of use-values is necessary for the creation of surplus-value, machines also indirectly aid in the production of surplus-value. It is to be understood in the stronger sense that machines directly enhance the process of creating surplus-value.

Exam Question 982 *What is the purpose of the introduction of machinery under capitalism?*

The question whether and how the capitalist application of machinery achieves this purpose, and what implications this process has for the laborer, will be developed in the present chapter. ↓ In order to determine the proper starting point for this inquiry, Marx looks at the commonalities and differences between machinery and the manufactories based on division of labor:

374:4 In manufacture, the revolution in the mode of production has labor-power as its point of origin, and in modern industry the instruments of labor.

391:4 Die Umwälzung der Produktionsweise nimmt in der Manufaktur die Arbeitskraft zum Ausgangspunkt, in der großen Industrie das Arbeitsmittel.

↑ Both were technical innovations driven by the profit motive, but the division of labor in the manufactories is a development of the laborer himself and his work process, while machinery is a development of his tools. Therefore machinery overcomes the limitations of the system of manufactories explained in . ↓ The question to be addressed in this first section is therefore:

Our first inquiry then is, how the instruments of labor are converted from tools into machines, or how a machine distinguishes itself from the implements of a handicraft?

Es ist also zunächst zu untersuchen, wodurch das Arbeitsmittel aus einem Werkzeug in eine Maschine verwandelt wird oder wodurch sich die Maschine vom Handwerksinstrument unterscheidet.

The “or,” as so often, connects two aspects of the same process: the first aspect sees it as historical forces at work, and the second aspect looks at the inner logic followed by these historical forces. “Distinguish itself” does not mean here “how machinery is special” but “which are the real characteristics differentiating hand tools from machinery.” Marx is therefore looking for the real definition of machinery. The real definition of machinery and the historical origin of capitalist machinery take up the first section.

15. Machinery and Modern Industry

Question 983 *How does a machine distinguish itself from the implements of a handicraft?*

↓ Marx concludes these preliminary remarks with an interesting methodological disclaimer:

We are only concerned here with the broad and general characteristics; for epochs in the history of society are no more separated from each other by hard and fast lines of demarcation, than are geological epochs.

Es handelt sich hier nur um große, allgemeine Charakterzüge, denn abstrakt strenge Grenzlinien scheiden ebensowenig die Epochen der Gesellschafts- wie der Erdgeschichte.

Große, allgemeine Charakterzüge is translated here as “broad and general characteristics.” It should not be translated as “striking,” as

the Moore-Aveling translation does. The basic regularities are likely to be enduring but, exactly because of their persistence, are

not necessarily perceived as striking.

15.1.a. [Difference between Tool and Machine]

Now it starts. Marx first looks at the capitalist production process as a labor process, and in section 15.2 he will discuss the valorization aspect of it. Marx’s first project is the development of a real definition of machinery. ↓ For this, he examines two common definitions of a machine from the literature:

374:5/o Mathematicians and mechanicians, and in this they are followed by a few English economists, call a tool a simple machine, and a machine a complex tool. They see no essential difference between tool and machine, and even give the name of machine to the simple mechanical powers, the lever, the inclined plane, the screw, the wedge, etc.⁸⁷

391:5/o Mathematiker und Mechaniker—und man findet dies hier und da von englischen Ökonomen wiederholt—erklären das Werkzeug für eine einfache Maschine und die Maschine für ein zusammengesetztes Werkzeug. Sie sehn hier keinen wesentlichen Unterschied und nennen sogar die einfachen mechanischen Potenzen, wie Hebel, schiefe Ebene, Schraube, Keil usw., Maschinen.⁸⁷

⁸⁷ See, for instance, Hutton: “Course of Mathematics.”

⁸⁷ Sieh z.B. Huttons „Course of Mathematics“.

Although it is undeniable that machines are composed of these simple mechanical elements, Marx rejects this explanation:

It is true, every machine is a combination of those simple powers, no matter how they may be disguised. From the economic standpoint however this explanation is useless, because it lacks the historical element.

In der Tat besteht jede Maschine aus jenen einfachen Potenzen, wie immer verkleidet und kombiniert. Vom ökonomischen Standpunkt jedoch taugt die Erklärung nichts, denn ihr fehlt das historische Element.

The engineering explanation is useless for an economist—because “it lacks the historical element,” i.e., it does not give the specific reasons that led to the development of machinery. A few paragraphs later, in 376:1, Marx gives an analysis in which the historical element is *not* lacking.

Exam Question 985 *Why is the definition that a machine is just a complex tool, and a tool a simple machine, not useful for an economist?*

↓ The next explanation cannot be dismissed as quickly for methodological reasons. It has some merit, but we will see later that it is still not quite correct. This definition recognizes

that machinery replaces the workers, but only the worker in his function as motive power, not the worker as the operator of the tools. Marx will deal at length with this distinction later in this section:

One also finds the following explanation of the difference between tool and machine: in the case of a tool, man is the motive power, while the motive power of a machine is something different from man, as, for instance, an animal, water, wind, and so on.⁸⁸

Andrerseits sucht man den Unterschied zwischen Werkzeug und Maschine darin, daß beim Werkzeug der Mensch die Bewegungskraft, bei der Maschine eine von der menschlichen verschiedene Naturkraft, wie Tier, Wasser, Wind usw.⁸⁸

Marx does not say here whether or to what extent he agrees with this definition. He sends mixed signals. On the one hand, footnote 88 says that the book containing this definition is “in many respects a laudable piece:”

⁸⁸ “From this point of view we may draw a sharp line of distinction between a tool and a machine: spades, hammers, chisels, etc., combinations of levers and of screws, in all of which, no matter how complicated they may be in other respects, man is the motive power, ... all this falls under the idea of a tool; but the plough, which is drawn by animal power, and wind-mills, etc., must be classed among machines.” (Wilhelm Schulz: “Die Bewegung der Produktion.” Zürich, 1843, p. 38.) In many respects a laudable piece.

⁸⁸ „Von diesem Gesichtspunkt aus läßt sich denn auch eine scharfe Grenze zwischen Werkzeug und Maschine ziehn: Spaten, Hammer, Meißel usw., Hebel- und Schraubenwerke, für welche, mögen sie übrigens noch so künstlich sein, der Mensch die bewegende Kraft ist ... dies alles fällt unter den Begriff des Werkzeugs; während der Pflug mit der ihn bewegenden Tierkraft, Wind- usw. Mühlen zu den Maschinen zu zählen sind.“ (Wilhelm Schulz, „Die Bewegung der Produktion“, Zürich 1843, p. 38.) Eine in mancher Hinsicht lobenswerte Schrift.

⇓ After these patronizing remark in the footnote that the author tries to do the right thing but not quite succeeds, the main text brings considerations making it questionable that this is the right definition:

According to this, a plough drawn by oxen, which is a contrivance common to the most different epochs, would be a machine, while Claussen’s circular loom, which, worked by a single laborer, weaves 96,000 picks per minute, would be a mere tool. Nay, this very loom, though a tool when worked by hand, would, if worked by steam, be a machine. And since the application of animal power is one of man’s earliest inventions, production by machinery would have preceded production by handicrafts.

Danach wäre ein mit Ochsen bespannter Pflug, der den verschiedensten Produktions-epochen angehört, eine Maschine, Claussens Circular Loom, der von der Hand eines einzigen Arbeiters bewegt, 96 000 Maschen in einer Minute verfertigt, ein bloßes Werkzeug. Ja, derselbe loom wäre Werkzeug, wenn mit der Hand, und Maschine, wenn mit Dampf bewegt. Da die Anwendung von Tierkraft eine der ältesten Erfindungen der Menschheit, ginge in der Tat die Maschinenproduktion der Handwerksproduktion voraus.

We will see later that the replacement of the human as a power source is not the real definition of machinery; its real definition is the replacement of the human as the one who holds and operates the tools that manipulate the object of labor.

Marx will also argue that, once the human as operator of tools has been replaced, also his replacement as a power source is imminent. The error of the present definition is therefore that it does not capture the *main* driving force leading to the industrial revolution, but uses a secondary criterion instead, which is a consequence of the action of this main driving force. At the end of the paragraph Marx hints at the correct definition of machinery, which he will

15. Machinery and Modern Industry

develop later in more detail:

When in 1735, John Wyatt brought out his spinning machine, and began the industrial revolution of the 18th century, not a word did he say about an ass driving it instead of a man, and yet this part fell to the ass. He described it as a machine “to spin without fingers.”⁸⁹

Als John Wyatt 1735 seine Spinnmaschine und mit ihr die industrielle Revolution des 18. Jahrhunderts ankündigte, erwähnte er mit keinem Wort, daß statt eines Menschen ein Esel die Maschine treibe, und dennoch fiel diese Rolle dem Esel zu. Eine Maschine, „um ohne Finger zu spinnen“, lautete sein Programm.⁸⁹

↑ We will see shortly that the criterion “to spin without fingers” resonates with Marx’s real definition of machinery.

Footnote 89 gives more historical details, leading to a general plea how important it would be to write a history of technology.

⁸⁹ Before his time, spinning machines, although very imperfect ones, had already been used, and Italy was probably the country of their first appearance. A critical history of technology would show how little any of the inventions of the 18th century are the work of a single individual. Hitherto there is no such book.

⁸⁹ Schon vor ihm wurden, wenn auch sehr unvollkommene, Maschinen zum Vorspinnen angewandt, wahrscheinlich zuerst in Italien. Eine kritische Geschichte der Technologie würde überhaupt nachweisen, wie wenig irgendeine Erfindung des 18. Jahrhunderts einem einzelnen Individuum gehört. Bisher existiert kein solches Werk.

↑ In the meanwhile such books have been written. An important book, pointing out some of the energy issues Marx overlooked, is [Wri10]. ↓ Marx compares this work with the work of Darwin:

Darwin has interested us in the history of Nature’s Technology, i.e., in the formation of the organs of plants and animals, which organs serve as instruments of production for sustaining life. Does not the history of the productive organs of man, of organs that are the material basis of all social organisation, deserve equal attention? And would not such a history be easier to compile, since, as Vico says, human history differs from natural history in this, that we have made the former, but not the latter?

Darwin hat das Interesse auf die Geschichte der natürlichen Technologie gelenkt, d.h. auf die Bildung der Pflanzen- und Tierorgane als Produktionsinstrumente für das Leben der Pflanzen und Tiere. Verdient die Bildungsgeschichte der produktiven Organe des Gesellschaftsmenschen, der materiellen Basis jeder besondern Gesellschaftsorganisation, nicht gleiche Aufmerksamkeit? Und wäre sie nicht leichter zu liefern, da, wie Vico sagt, die Menschengeschichte sich dadurch von der Naturgeschichte unterscheidet, daß wir die eine gemacht und die andre nicht gemacht haben?

Not only would such an inquiry be easier than Darwin’s work, it would also be extremely important for understanding society:

^{89 ctd} Technology discloses man’s mode of dealing with Nature, the process of production by which he sustains his life, and thereby also lays bare the mode of formation of his social relations, and of the mental conceptions that flow from them.

^{89 ctd} Die Technologie enthüllt das aktive Verhalten des Menschen zur Natur, den unmittelbaren Produktionsprozeß seines Lebens, damit auch seiner gesellschaftlichen Lebensverhältnisse und der ihnen entquellenden geistigen Vorstellungen.

↑ The central role assigned to the relations *in* production is also apparent in Marx’s wording in chapter One, 90:1–91:0.

15.1. The Development of Machinery

The second half of footnote 89 criticizes the abstract physicalist materialism in favor of the truly materialist and therefore scientific method. Marx switches abruptly from technology to religion in order to give an Achilles heel critique: even in religion a materialist approach is necessary, one which not only deciphers the content of the historical forms but also explains, on the basis of the material conditions of the time, why this content takes this form:

^{89 ctd} Even any history of religion, which fails to take account of this material basis, is uncritical. It is indeed much easier to discover by analysis the earthly core of the misty creations of religion, than, conversely, it is, to develop from the actual relations of life the corresponding celestialized forms of those relations. The latter method is the only materialistic, and therefore the only scientific one.

^{89 ctd} Selbst alle Religionsgeschichte, die von dieser materiellen Basis abstrahiert, ist—unkritisch. Es ist in der Tat viel leichter, durch Analyse den irdischen Kern der religiösen Nebelbildungen zu finden, als umgekehrt, aus den jetzmaligen wirklichen Lebensverhältnissen ihre verhimmelten Formen zu entwickeln. Die letztere ist die einzig materialistische und daher wissenschaftliche Methode.

Question 986 Which approach to religion is in Marx's view uncritical, and which approach, used much more rarely, is the only scientific one? What does this analogy about religion say about how machinery should be investigated?

⇓ Marx concludes with an ad hominem critique which in modern times would no longer be considered legitimate:

The weak points in the abstract materialism of natural science, a materialism that excludes history and its process, are at once evident from the abstract and ideological conceptions of its spokespeople, whenever they venture beyond the bounds of their own speciality.

Die Mängel des abstrakt naturwissenschaftlichen Materialismus, der den geschichtlichen Prozeß ausschließt, ersieht man schon aus den abstrakten und ideologischen Vorstellungen seiner Wortführer, sobald sie sich über ihre Spezialität hinauswagen.

15.1.b. [The real definition of machinery]

Now Marx begins his own analysis of what a machine is and how it differs from a handicraft tool. In order to arrive at a real definition of the machine, he begins not with the individual machine but with the totality, the “machine system.”

Question 987 In order to develop his real definition of a machine, Marx does not look at individual machines but at a typical machine system of his time. Why?

Marx takes a careful look at a typical machine system of his time, in order to find clues about the essential character of the machines. One might say he visits actual machines in their own habitat, the machine system, and listens carefully what these machine themselves tell him about their origin. Marx does not take for granted what he deciphers; immediately after giving his interpretation of what the machine tells him, he brings a number of arguments, mostly historical, confirming that he has indeed found the real definition of the machine. This whole procedure demonstrates what he meant, in footnote 89, with an archeology-like critical history of technology. After distilling the real definition of the machine from this empirical evidence, he will use this definition to reconstruct the machine in his mind, and he will return to a theoretically better grounded understanding of the machine system in 381:1.

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↓ If you look at the machine system empirically, even if you are not armed with a deeper understanding of its structure, it is nevertheless evident that such a machine system can usually be divided into three parts, two of which are subsidiary to the third part, the so-called working machine:

376:1 All fully developed machinery consists of three essentially different parts, the motor mechanism, the transmitting mechanism, and finally the tool or working machine. The motor mechanism is that which puts the whole in motion. It either generates its own motive power, like the steam-engine, the caloric engine, the electromagnetic machine, etc., or it receives its impulse from some already existing natural force, like the water-wheel from a head of water, the wind-mill from wind, etc. The transmitting mechanism, composed of fly-wheels, shafting, toothed wheels, pullies, straps, ropes, bands, pinions, and gearing of the most varied kinds, regulates the motion, changes its form, where necessary, as for instance, from linear to circular, and divides and distributes it among the working machines.

393:1 Alle entwickelte Maschinerie besteht aus drei wesentlich verschiedenen Teilen, der Bewegungsmaschine, dem Transmissionsmechanismus, endlich der Werkzeugmaschine oder Arbeitsmaschine. Die Bewegungsmaschine wirkt als Triebkraft des ganzen Mechanismus. Sie erzeugt ihre eigne Bewegungskraft, wie die Dampfmaschine, kalorische Maschine, elektromagnetische Maschine usw., oder sie empfängt den Anstoß von einer schon fertigen Naturkraft außer ihr, wie das Wasserrad vom Wassergefäll, der Windflügel vom Wind usw. Der Transmissionsmechanismus, zusammengesetzt aus Schwungrädern, Treibwellen, Zahnradern, Kreiselradern, Schäften, Schnüren, Riemen, Zwischengeschirr und Vorgelege der verschiedensten Art, regelt die Bewegung, verwandelt, wo es nötig, ihre Form, z.B. aus einer perpendikulären in eine kreisförmige, verteilt und überträgt sie auf die Werkzeugmaschinerie.

Factories at Marx's time had one huge motor (typically a steam engine) which drove many machines through an intricate mechanical transmission mechanism. Today, this transmission of power is usually less conspicuous using a hydraulic or compressed air system. Also, in many cases, cheap electric power has made a central driving motor unnecessary: the "prime mover" has been replaced by an electric power plant, leather belts have been replaced by transmission wires, and every machine has several electric motors built in. [Wri10, p. where?] comments on the introduction of electric motors into production.

Prime mover and transmission mechanism play a subordinate role to what Marx calls the "working machines."

These two first parts of the whole mechanism exist solely for putting the working machines in motion, by means of which motion the working machine seizes the object of labor and modifies it as desired.

Beide Teile des Mechanismus sind nur vorhanden, um der Werkzeugmaschine die Bewegung mitzuteilen, wodurch sie den Arbeitsgegenstand anpackt und zweckgemäß verändert.

↓ Marx asserts that this third part, the working machine, is the significant part not only historically but also in the mechanization of new industries:

The tool machine or working machine is that part of the machinery with which the industrial revolution of the 18th century started. And to this day it constantly serves as such a starting-point, whenever a handicraft, or a

Dieser Teil der Maschinerie, die Werkzeugmaschine, ist es, wovon die industrielle Revolution im 18. Jahrhundert ausgeht. Sie bildet noch jeden Tag von neuem den Ausgangspunkt, sooft Handwerks-

manufacture, is turned into an industry carried on by machinery.

betrieb oder Manufakturbetrieb in Maschinenbetrieb übergeht.

↑ This last sentence is analogous to Marx's statement about capital in money form at the beginning of chapter Four, 157:3: money capital is not only historically the first form of capital, but also nowadays every startup capital begins in the form of money.

Question 988 *Enumerate the three essentially different parts of any fully developed machinery system. Which of these three parts is considered by Marx to be the main part, and why?*

↓ A closer look at the above-defined working machine proper shows that, at least at Marx's time, the familiar handicraft tools are still recognizable in it. This is the evidence on which Marx will base his real definition of the machine a little later in the same paragraph. Given the importance of the conclusion he is going to draw, he proceeds slowly and carefully, with many examples:

376:2/o On a closer examination of the working machine proper, we find in it, as a general rule, though often, no doubt, under very altered forms, the apparatus and tools used by the handicraftsman or manufacturing workman; with this difference, that instead of being human implements, they are the implements of a mechanism, or mechanical implements. Either the entire machine is only a more or less altered mechanical edition of the old handicraft tool, as, for instance, the power-loom,⁹⁰ or the working parts fitted in the frame of the machine are old acquaintances, as spindles are in a mule, needles in a stocking-loom, saws in a sawing-machine, and knives in a chopping machine.

393:2/o Sehn wir uns nun die Werkzeugmaschine oder eigentliche Arbeitsmaschine näher an, so erscheinen im großen und ganzen, wenn auch oft in sehr modifizierter Form, die Apparate und Werkzeuge wieder, womit der Handwerker und Manufakturarbeiter arbeitet, aber statt als Werkzeuge des Menschen jetzt als Werkzeuge eines Mechanismus oder als mechanische. Entweder ist die ganze Maschine nur eine mehr oder minder veränderte mechanische Ausgabe des alten Handwerksinstruments, wie bei dem mechanischen Webstuhl,⁹⁰ oder die am Gerüst der Arbeitsmaschine angebrachten tätigen Organe sind alte Bekannte, wie Spindeln bei der Spinnmaschine, Nadeln beim Strumpfwirkerstuhl, Sägeblätter bei der Sägemaschine, Messer bei der Zerkhackmaschine usw.

⁹⁰ Especially in the original form of the power-loom, we recognise, at the first glance, the ancient loom. In its modern form, the power-loom has undergone essential alterations.

⁹⁰ Namentlich in der ursprünglichen Form des mechanischen Webstuhls erkennt man den alten Webstuhl auf den ersten Blick wieder. Wesentlich verändert erscheint er in seiner modernen Form.

↑ The working machine consists of tools interacting with the object of labor (which, at least in the beginning, are similar to the handicraft implements), and the mechanism holding the tools. ↓ The distinction between tools and the apparatus holding the tools is not only apparent in the machine itself but at Marx's time it was also apparent in the production process producing the machine.

The distinction between these tools and the body proper of the machine, exists from their very birth; for they continue for the most part to be produced by handicraft, or

Der Unterschied dieser Werkzeuge von dem eigentlichen Körper der Arbeitsmaschine erstreckt sich bis auf ihre Geburt. Sie werden nämlich immer noch größtenteils hand-

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by manufacture, and are afterwards fitted into the body of the machine, which is the product of machinery.⁹¹

werksmäßig oder manufakturmäßig produziert und später erst an den maschinenmäßig produzierten Körper der Arbeitsmaschine befestigt.⁹¹

Footnote 91 makes the correction that this latter difference is apparently fading away with the further development of machinery:

⁹¹ It is only during the last 15 years (i.e., since about 1850), that a constantly increasing portion of these machine tools have been made in England by machinery, although it was not done by the same firms which make the machines themselves. Instances of machines for the fabrication of these mechanical tools are the automatic bobbin-making engine, the cardsetting engine, shuttle-making machines, and machines for forging mule and throstle spindles.

⁹¹ Erst seit ungefähr 1850 wird ein stets wachsender Teil der Werkzeuge der Arbeitsmaschinen maschinenmäßig in England fabriziert, obgleich nicht von denselben Fabrikanten welche die Maschinen selbst machen. Maschinen zur Fabrikation solcher mechanischen Werkzeuge sind z.B. die automatic bobbin-making engine, card-setting engine, Maschinen zum Machen der Weberlitzten, Maschinen zum Schmieden von mule und throstle Spindeln.

↓ Guided by this closer look at the working machine, Marx arrives at the following “real definition” of the machine: the machine is a mechanism taking over the worker’s manipulation of the object of labor.

The machine proper is therefore a mechanism that, when the appropriate motive power is fed into it, performs with its tools the same operations that were formerly done by the workman with similar tools.

Die Werkzeugmaschine ist also ein Mechanismus, der nach Mitteilung der entsprechenden Bewegung mit seinen Werkzeugen dieselben Operationen verrichtet, welche früher der Arbeiter mit ähnlichen Werkzeugen verrichtete.

↑ Note the historical element in this definition: the working machine performs operations formerly done by workers. ↓ Apparently responding to 374:5/o, Marx adds that it does not matter here whether or not the motive force is human. The origin of the motive power does not change the essence of what Marx is discussing here.

Whether the motive power is derived from man, or from some other machine, makes no difference in this respect. From the moment that the tool proper is taken from man, and fitted into a mechanism, it is machine and no longer a mere implement. The difference strikes one at once, even in those cases where man himself continues to be the prime mover.

Ob die Triebkraft nun vom Menschen ausgeht oder selbst wieder von einer Maschine, ändert am Wesen der Sache nichts. Nach Übertragung des eigentlichen Werkzeugs vom Menschen auf einen Mechanismus tritt eine Maschine an die Stelle eines bloßen Werkzeugs. Der Unterschied springt sofort ins Auge, auch wenn der Mensch selbst noch der erste Motor bleibt.

↑ A first test that the above is indeed the “real definition” of machinery is that it will not be confused or made ambiguous by secondary factors. Even if humans remain the motive force, the difference between tool and machine is still clearly discernible.

Question 991 *How does a machine differ from a hand tool?*

Also the historical development of many of the machines available at Marx’s time shows that the problem needing a solution was not an insufficient supply of power, but the limited number of tools which a human can handle at the same time.

The number of implements that he himself can use simultaneously, is limited by the

Die Anzahl von Arbeitsinstrumenten, womit er gleichzeitig wirken kann, ist durch

number of his own natural instruments of production, by the number of his bodily organs. In Germany, they tried at first to make one spinner work two spinning-wheels, that is, to work simultaneously with both hands and both feet. This was too strenuous. Later, a treddle spinning-wheel with two spindles was invented, but adepts in spinning, who could spin two threads at once, were almost as scarce as two-headed men. The Jenny, on the other hand, even at its very birth, spun with 12–18 spindles, and the stocking-loom knits with many thousand needles at once. The number of tools that a machine can bring into play simultaneously is from the very first emancipated from the organic limits that hedge in the tools of a handicraftsman.

die Anzahl seiner natürlichen Produktionsinstrumente, seiner eignen körperlichen Organe, beschränkt. Man versuchte in Deutschland erst einen Spinner zwei Spinnräder treten, ihn also gleichzeitig mit zwei Händen und zwei Füßen arbeiten zu lassen. Dies war zu anstrengend. Später erfand man ein Tretpinnrad mit zwei Spindeln, aber die Spinnvirtuosen, die zwei Fäden gleichzeitig spinnen konnten, waren fast so selten als zweiköpfige Menschen. Die Jenny spinnt dagegen von vornherein mit 12–18 Spindeln, der Strumpfwirkerstuhl strickt mit viel 1000 Nadeln auf einmal usw. Die Anzahl der Werkzeuge, womit dieselbe Werkzeugmaschine gleichzeitig spielt, ist von vornherein emanzipiert von der organischen Schranke, wodurch das Handwerkszeug eines Arbeiters beengt wird.

↑ This last sentence is important: a machine, even one that is driven by human power, overcomes the limitation that a human, with his or her two arms and legs, can only operate a limited number of tools.

The next paragraph brings several specific examples all of which show that the essential driving moment in the development of machinery was not the replacement of human motive power, but the multiplication of the tools. ↓ First example: with those tools where the exercise of power was separable from the direction of the activity, the direction of the activity often was mechanized first, while the exercise of power still remained with the human operator:

377:1/oo In many manual implements the distinction between man as mere motive power, and man as the workman or operator properly so called, is brought into striking contrast. For instance, the foot is merely the prime mover of the spinning-wheel, while the hand, working with the spindle, and drawing and twisting, performs the real operation of spinning. It is this last part of the handicraftsman's implement that is first seized upon by the industrial revolution, leaving to the workman, in addition to his new labor of watching the machine with his eyes and correcting its mistakes with his hands, the merely mechanical part of being the moving power.

394:1/oo An vielem Handwerkszeug besitzt der Unterschied zwischen dem Menschen als bloßer Triebkraft und als Arbeiter mit dem eigentlichen Operateur eine sinnlich besonderte Existenz. Z.B. beim Spinnrad wirkt der Fuß nur als Triebkraft, während die Hand, die an der Spindel arbeitet, zupft und dreht, die eigentliche Spinnoperation verrichtet. Grade diesen letzten Teil des Handwerksinstruments ergreift die industrielle Revolution zuerst und überläßt dem Menschen, neben der neuen Arbeit, die Maschine mit seinem Auge zu überwachen und ihre Irrtümer mit seiner Hand zu verbessern, zunächst noch die rein mechanische Rolle der Triebkraft.

The next group of examples discusses tools which by their nature require so little direction that the main task of humans was to supply power.

On the other hand, implements, in regard to which man has always acted as a simple

Werkzeuge dagegen, auf die der Mensch von vornherein nur als einfache Triebkraft

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motive power, as, for instance, by turning the crank of a mill,⁹² by pumping, by moving up and down the arm of a bellows, by pounding with a mortar, etc., it is true that such implements are the first to call for the application of animals, water⁹³ and wind as motive powers.

↑ Although they are the first to call forth the application of non-human motive power, Marx will say next that these early machines remained isolated and did *not* lead to the development of machine technology. Before we get to this, let's look at footnotes 92 and 93. They are digressions commenting on the early replacement of human power by other sources. ↓ Regarding the replacement of human power by animals Marx says that animals were often treated better than humans.

⁹² Moses says: "Thou shalt not muzzle the ox that treads the corn." The Christian philanthropists of Germany, on the contrary, fastened a wooden board round the necks of the serfs, whom they used as a motive power for grinding, in order to prevent them from putting flour into their mouths with their hands.

↓ Footnote 93 gives some anecdotes about the early use of wind as motive power:

⁹³ It was partly the want of streams with a good fall on them, and partly their battles with superabundance of water in other respects, that compelled the Dutch to resort to wind as a motive power. The wind-mill itself they got from Germany, where its invention was the origin of a pretty squabble between the nobles, the priests, and the emperor, as to which of those three the wind "belonged." The air makes bondage, was the cry in Germany, at the same time that the wind was making Holland free. What it reduced to bondage in this case, was not the Dutchman, but the land for the Dutchman. In 1836, 12,000 windmills of 6,000 horse-power were still employed in Holland, to prevent two-thirds of the land from being reconverted into morasses.

↓ In the main text, the next sentence contains the "but" (*aber*) corresponding to the "it is true" (*zwar*) above:

Here and there, long before the period of manufacture, and also, to some extent, during that period, these implements pass over into machines, but without creating any revolution in the mode of production.

↑ Marx says two things about the tools where human intervention has the main purpose of supplying power:

- They were the first to be powered by a non-human source of power and in this way "stretched" to be machines in a non-mechanized environment, some of them long before the manufacturing period.

wirkt, wie z.B. beim Drehn der Kurbel einer Mühle,⁹² bei[m] Pumpen, beim Auf- und Abbewegen der Arme eines Blasebalgs, beim Stoßen eines Mörsers etc., rufen zwar zuerst die Anwendung von Tieren, Wasser, Wind⁹³ als Bewegungskräften hervor.

⁹² Moses von Ägypten sagt: „Du sollst dem Ochsen, der drischt, nicht das Maul verbinden.“ Die christlich germanischen Philanthropen legten dagegen dem Leibeignen, den sie als Triebkraft zum Mahlen verwandten, eine große hölzerne Scheibe um den Hals, damit er kein Mehl mit der Hand zum Mund bringen könne.

⁹³ Teils Mangel an lebendigem Wassergefäll, teils Kampf gegen sonstigen Wasserüberfluß zwangen die Holländer zur Anwendung des Winds als Triebkraft. Die Windmühle selbst erhielten sie aus Deutschland, wo diese Erfindung einen artigen Kampf zwischen Adel, Pfaffen und Kaiser hervorrief, wem denn von den drei der Wind „gehöre“. Luft macht eigen, hieß es in Deutschland, während der Wind Holland frei macht. Was er hier eigen machte, war nicht der Holländer, sondern der Grund und Boden für den Holländer. Noch 1836 wurden 12 000 Windmühlen von 6000 Pferdekraft in Holland verwandt, um zwei Dritteile des Lands vor Rückverwandlung in Morast zu schützen.

Sie recken sich, teilweise innerhalb, sporadisch schon lange vor der Manufakturperiode zu Maschinen, aber sie revolutionieren die Produktionsweise nicht.

- Their conversion into machines did not cause the industrial revolution.

⇓ Two examples of such early machines: pumps in Holland, blacksmith's bellows in England

It becomes evident, in the period of Modern Industry, that these implements, even under their form of manual tools, are already machines. For instance, the pumps with which the Dutch, in 1836–7, emptied the Lake of Harlem, were constructed on the principle of ordinary pumps; the only difference being, that their pistons were driven by cyclopean steam-engines, instead of by men. The common and very imperfect bellows of the blacksmith is, in England, occasionally converted into a blowing-engine, by connecting its arm with a steam-engine.

Daß sie selbst in ihrer handwerksmäßigen Form bereits Maschinen sind, zeigt sich in der Periode der großen Industrie. Die Pumpen z.B., womit die Holländer 1836/37 den See von Harlem auspumpten, waren nach dem Prinzip gewöhnlicher Pumpen konstruiert, nur daß zyklische Dampfmaschinen statt der Menschenhände ihre Kolben trieben. Der gewöhnliche und sehr unvollkommene Blasbalg des Grobschmieds wird noch zuweilen in England durch bloße Verbindung seines Arms mit einer Dampfmaschine in eine mechanische Luftpumpe verwandelt.

⇑ Marx does not tell us where these cyclopean steam engines got their fuel from. ⇓ Marx's last example is the steam engine itself: it did not cause the industrial revolution either, but conversely, the industrial revolution required a revolutionized steam engine.

The steam-engine itself, such as it was at its invention, during the manufacturing period at the close of the 17th century, and such as it continued to be down to 1780,⁹⁴ did not give rise to any industrial revolution. It was, on the contrary, the invention of machines that made a revolution in the form of steam-engines necessary.

Die Dampfmaschine selbst, wie sie Ende des 17. Jahrhunderts während der Manufakturperiode erfunden ward und bis zum Anfang der 80er Jahre des 18. Jahrhunderts fortexistierte,⁹⁴ rief keine industrielle Revolution hervor. Es war vielmehr umgekehrt die Schöpfung der Werkzeugmaschinen, welche die revolutionierte Dampfmaschine notwendig machte.

⁹⁴ It was, indeed, very much improved by Watt's first so-called single acting engine; but, in this form, it continued to be a mere machine for raising water, and the liquor from salt mines.

⁹⁴ Sie wurde zwar schon sehr verbessert durch Watts erste, sogenannte einfach wirkende Dampfmaschine, blieb aber in dieser Form bloße Hebemaschine für Wasser und Salzsole.

Question 992 *Is the steam engine the origin of the industrial revolution?*

⇓ Marx uses this occasion to explain why the replacement of human power with non-human power does not lag far behind the introduction of machinery, although the power source is not the differentia specifica (Marx does not use this word here although it would be appropriate) of machinery. The reason is that human power very quickly becomes too limited to drive the many tools the machine is holding:

As soon as man, instead of working with an implement on the object of his labor, becomes merely the motive power of an implement-machine, it is a mere accident that motive power takes the disguise of human muscle; and it may equally well take the form of wind, water or steam. Of course,

Sobald der Mensch, statt mit dem Werkzeug auf den Arbeitsgegenstand, nur noch als Triebkraft auf eine Werkzeugmaschine wirkt, wird die Verkleidung der Triebkraft in menschliche Muskel zufällig und kann Wind, Wasser, Dampf usw. an die Stelle treten. Dies schließt natürlich nicht aus,

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this does not prevent such a change of form from producing great technical alterations in the mechanism that was originally constructed to be driven by man alone. Now-a-days, all machines that have their way to make, such as sewing-machines, bread-making machines, etc., are, unless from their very nature their use on a small scale is excluded, constructed to be driven both by human and by purely mechanical motive power.

daß solcher Wechsel oft große technische Änderungen des ursprünglich für menschliche Treibkraft allein konstruierten Mechanismus bedingt. Heutzutage werden alle Maschinen, die sich erst Bahn brechen müssen, wie Nähmaschinen, Brotbereitungsmaschinen usw., wenn sie den kleinen Maßstab nicht von vornherein durch ihre Bestimmung ausschließen, für menschliche und rein mechanische Treibkraft zugleich konstruiert.

15.1.c. [Development of the Machine System]

After this confirmation that the real definition of a working machine in 376:2/o is correct, Marx now proceeds to *use* this definition. ↓ He begins with a recapitulation of the definition itself, which also recapitulates how the machinery combines one or more working machines with a power source.

379:1 The machine which is the starting-point of the industrial revolution supersedes the workman, who handles a single tool, by a mechanism operating with a number of similar tools, and set in motion by a single motive power, whatever the form of that power may be.⁹⁵

396:1 Die Maschine, wovon die industrielle Revolution ausgeht, ersetzt den Arbeiter, der ein einzelnes Werkzeug handhabt, durch einen Mechanismus, der mit einer Masse derselben oder gleichartiger Werkzeuge auf einmal operiert und von einer einzigen Triebkraft, welches immer ihre Form, bewegt wird.⁹⁵

Marx's definition leans on Babbage:

⁹⁵ "The union of all these simple instruments, set in motion by a single motor, constitutes a machine." (Babbage, l.c.)

⁹⁵ „Die Vereinigung aller dieser einfachen Instrumente, durch einen einzigen Motor in Bewegung gesetzt, bildet eine Maschine.“ (Babbage, l.c. [p. 136.]

Once this definition is worked out, Marx demonstrates that this definition gives us the categories to understand the historical evolution of machinery. Marx traces the development through which the machines as defined here necessarily become the elements in a bigger machine *system*.

Here we have the machine, but only as an elementary factor of production by machinery.

Hier haben wir die Maschine, aber erst als einfaches Element der maschinenmäßigen Produktion.

This evolution into a machine system goes through three phases: (a) The individual machines require a stronger motive power, which leads to the development of a prime mover outside the working machine transferring motive power through the transmission mechanism. (b) This motive power acts back on the machines by linking many equal machines together. (c) These machines differentiate themselves and develop a division of labor in a machine system.

(a) The first step after the transition from hand implements to machine (in which the tools were no longer operated by humans) was, as already remarked in 377:1/oo, the replacement of humans also as motive power. ↓ The increasing size of the machines made this replacement necessary:

379:2–381:0 Increase in the size of the machine, and in the number of its working tools, calls for a more massive mechanism to drive it; and this mechanism requires, in order to overcome its resistance, a mightier moving power than that of man, apart from the fact that man is a very imperfect instrument for producing uniform continued motion.

396:2/oo Die Erweiterung des Umfangs der Arbeitsmaschine und der Zahl ihrer gleichzeitig operierenden Werkzeuge bedingt einen massenhafteren Bewegungsmechanismus, und dieser Mechanismus zur Überwältigung seines eignen Widerstands eine mächtigere Triebkraft als die menschliche, abgesehen davon, daß der Mensch ein sehr unvollkommenes Produktionsinstrument gleichförmiger und kontinuierlicher Bewegung ist.

↓ Since the handling of the tools was separated from the transmission of power and had become part of the machine, the transition to non-human power had become possible.

Since the human is acting now simply as a motor, since a machine has taken the place of his tool, it is possible to replace him by natural forces.

Vorausgesetzt, daß er nur noch als einfache Triebkraft wirkt, also an die Stelle seines Werkzeugs eine Werkzeugmaschine getreten ist, können Naturkräfte ihn jetzt auch als Triebkraft ersetzen.

Now a description of the powers which replaced the humans: horses, water, wind, steam engine. ↓ First the horse:

Of all the great motors handed down from the manufacturing period, horse-power is the worst, partly because a horse has a head of his own, partly because he is costly, and the extent to which he is applicable in factories is very restricted.⁹⁶ Nevertheless the horse was extensively used during the infancy of Modern Industry. This is proved, as well by the complaints of contemporary agriculturists, as by the term “horse-power,” which has survived to this day as an expression for mechanical force.

Von allen aus der Manufakturperiode überlieferten großen Bewegungskräften war die Pferdekraft die schlechteste, teils weil ein Pferd seinen eignen Kopf hat, teils wegen seiner Kostspieligkeit und des beschränkten Umfangs, worin es in Fabriken allein anwendbar ist.⁹⁶ Dennoch wurde das Pferd häufig während der Kinderzeit der großen Industrie angewandt, wie außer dem Jammer gleichzeitiger Agronomen schon der bis heute überlieferte Ausdruck der mechanischen Kraft in Pferdekraft bezeugt.

⁹⁶ In January, 1861, John C. Morton read before the Society of Arts a paper on “The forces employed in agriculture.” He there states: “Every improvement that furthers the uniformity of the land makes the steam-engine more and more applicable to the production of pure mechanical force ... Horse-power is requisite wherever crooked fences and other obstructions prevent uniform action. These obstructions are vanishing day by day. For operations that demand more exercise of will than actual force, the only power applicable is that controlled every instant by the human mind—in other words, man-power.” Mr. Morton then reduces steam-power, horse-power, and man-power, to the unit in general use for steam-engines, namely, the

⁹⁶ John C. Morton verlas Dezember 1859 in der Society of Arts einen Aufsatz über „die in der Agrikultur angewandten Kräfte“. Es heißt darin u.a.: „Jede Verbeßrung, welche die Gleichförmigkeit des Bodens fördert, macht die Dampfmaschine zur Erzeugung rein mechanischer Kraft anwendbarer ... Pferdekraft wird erheischt, wo krumme Hecken und andre Hindernisse gleichförmige Aktion verhindern. Diese Hindernisse schwinden täglich mehr. In Operationen, die mehr Ausübung des Willens und weniger wirkliche Kraft erfordern, ist die durch den menschlichen Geist von Minute zu Minute gelenkte Kraft, also Menschenkraft, allein anwendbar.“ Herr Morton reduziert dann Dampfkraft, Pferdekraft und Menschenkraft auf die bei Dampfmaschi-

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force required to raise 33,000 lbs. one foot in one minute, and reckons the cost of one horse-power from a steam-engine to be 3d., and from a horse to be 5 1/2 d. per hour. Further, if a horse must fully maintain its health, it can work no more than 8 hours a day. Three at the least out of every seven horses used on tillage land during the year can be dispensed with by using steam-power, at an expense not greater than that which, the horses dispensed with, would cost during the 3 or 4 months in which alone they can be used effectively. Lastly, steam-power, in those agricultural operations in which it can be employed, improves, in comparison with horse-power, the quality of the work. To do the work of a steam-engine would require 66 men, at a total cost of 15s. an hour, and to do the work of a horse, 32 men, at a total cost of 8s. an hour.

nen gewöhnliche Maßeinheit, nämlich die Kraft, 33 000 Pfund in der Minute um einen Fuß zu heben, und berechnet die Kosten einer Dampfpferdekraft bei der Dampfmaschine auf 3 d. und beim Pferde auf 5 1/2 d. per Stunde. Ferner kann das Pferd bei voller Erhaltung seiner Gesundheit nur 8 Stunden täglich angewandt werden. Durch Dampfkraft können mindestens 3 von je 7 Pferden auf bebautem Land während des ganzen Jahrs erspart werden, zu einem Kostenpreis, nicht größer als dem der entlassenen Pferde während der 3 oder 4 Monate, wo sie allein wirklich vernutzt werden. In den Agrikulturoperationen, worin die Dampfkraft angewandt werden kann, verbessert sie endlich, verglichen mit der Pferdekraft, die Qualität des Machwerks. Um das Werk der Dampfmaschine zu verrichten, müßten 66 Arbeiter per Stunde zu zusammen 15 sh., und um das der Pferde zu verrichten, 32 Mann zu zusammen 8 sh. per Stunde angewandt werden.

↓ Now a brief mention of the other motive powers available:

Wind was too inconstant and uncontrollable, and besides, in England, the birthplace of Modern Industry, the use of water-power preponderated even during the manufacturing period.

Der Wind war zu unstet und unkontrollierbar, und die Anwendung der Wasserkraft überwog außerdem in England, dem Geburtsort der großen Industrie, schon während der Manufakturperiode.

↓ Hydro power was used for flour mills. Embedded in this discussion of the motive powers of flour mills Marx makes a side remark about the development of science stimulated by the development of machinery.

In the 17th century attempts had already been made to turn two pairs of millstones with a single water-wheel. But the increased size of the gearing was too much for the water-power, which had now become insufficient, and this was one of the circumstances that led to a more accurate investigation of the laws of friction. In the same way the irregularity caused by the motive power in mills that were put in motion by pushing and pulling a lever, led to the theory, and the application, of the fly-wheel, which afterwards plays so important a part in Modern Industry.⁹⁷ In this way, during the manufacturing period, were developed the first scientific and technical elements of Modern Mechanical Industry.

Man hatte bereits im 17. Jahrhundert versucht, zwei Läufer und also auch zwei Mahlgänge mit einem Wasserrad in Bewegung zu setzen. Der geschwollne Umfang des Transmissionsmechanismus geriet aber jetzt in Konflikt mit der nun unzureichenden Wasserkraft, und dies ist einer der Umstände, der zur genauern Untersuchung der Reibungsgesetze trieb. Ebenso führte das ungleichförmige Wirken der Bewegungskraft bei Mühlen, die durch Stoßen und Ziehen mit Schwengeln in Bewegung gesetzt wurden, auf die Theorie und Anwendung des Schwungrads,⁹⁷ das später eine so wichtige Rolle in der großen Industrie spielt. In dieser Art entwickelte die Manufakturperiode die ersten wissenschaftlichen und technischen Elemente der großen Industrie.

⁹⁷ Faulhaber, 1625; De Cous, 1688.

⁹⁷ Faulhaber, 1625; De Cous, 1688.

↓ Back to the discussion of motive powers. The deficiencies of water power were over-

come by steam power.

Arkwright's throstle-spinning mill was from the very first turned by water. But for all that, the use of water, as the predominant motive power, was beset with difficulties. It could not be increased at will, it failed at certain seasons of the year, and, above all, it was purely local.⁹⁸

⁹⁸ The modern turbine frees the industrial exploitation of water-power from many of its former fetters.

↑ Marx remarks that water and wind are "purely local" but does not explain why. Wind, hydro energy, and also biomass, which Marx does not mention at all, being derivatives of solar energy in the present or near past, are local and dispersed by their nature, because solar energy is dispersed.

↓ This dispersion and irregularity of water power was overcome by the cheap and concentrated energy of fossil fuels (coal) made usable by the steam engine. Marx is not aware how significant the bonanza of this cheap, concentrated, and dispatchable source of energy is.

In the Communist Manifesto, Marx and Engels write: "The bourgeoisie, during its rule of scarce one hundred years, has created more massive and more colossal productive forces than have all preceding generations together. Subjection of Nature's force to man, machinery, application of chemistry to industry and agriculture, steam-navigation, railways, electric telegraphs, clearing of whole continents for cultivation, canalization of rivers, whole populations conjured out of the ground—what earlier century had even a presentiment that such productive forces slumbered in the lap of social labor?" The puts too much emphasis on the *technology* (social labor) and overlooks how significant the sudden availability of cheap energy is for the phenomena here described.

Not till the invention of Watt's second and so-called double-acting steam-engine, was a prime mover found, that begot its own force by the consumption of coal and water, whose power was entirely under man's control, that was mobile and a means of locomotion, that was urban and not, like the waterwheel, rural, that permitted production to be concentrated in towns instead of, like the water-wheels, being scattered up and down the country,⁹⁹ that was of universal technical application, and, relatively speaking, little affected in its choice of residence by local circumstances.

The footnote emphasizes that only fossil fuels allowed the machines to come together in an urban system:

⁹⁹ "In the early days of textile manufactures, the locality of the factory depended upon the existence of a stream having a sufficient fall to turn

Arkwrights Throstlesspinnerei wurde von vornherein mit Wasser getrieben. Indes war auch der Gebrauch der Wasserkraft als herrschender Triebkraft mit erschwerenden Umständen verbunden. Sie konnte nicht beliebig erhöht und ihrem Mangel nicht abgeholfen werden, sie versagte zuweilen und war vor allem rein lokaler Natur.⁹⁸

⁹⁸ Die moderne Erfindung der Turbinen befreit die industrielle Ausbeutung der Wasserkraft von vielen frühern Schranken.

Erst mit Watts zweiter, sog. doppelt wirkender Dampfmaschine war ein erster Motor gefunden, der seine Bewegungskraft selbst erzeugt aus der Verspeisung von Kohlen und Wasser, dessen Kraftpotenz ganz unter menschlicher Kontrolle steht, der mobil und ein Mittel der Lokomotion, städtisch und nicht gleich dem Wasserrad ländlich, die Konzentration der Produktion in Städten erlaubt, statt sie wie das Wasserrad über das Land zu zerstreuen,⁹⁹ universell in seiner technologischen Anwendung, in seiner Residenz verhältnismäßig wenig durch lokale Umstände bedingt.

⁹⁹ „In der Frühzeit der Textilmanufaktur war der Standort der Fabrik von der Existenz eines Wasserlaufs abhängig, der genügend Gefälle hat-

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a water-wheel; and, although the establishment of the water-mills was the commencement of the breaking up of the domestic system of manufacture, yet the mills necessarily situated upon streams, and frequently at considerable distances the one from the other, formed part of a rural, rather than an urban system; and it was not until the introduction of the steam-power as a substitute for the stream that factories were congregated in towns, and localities where the coal and water required for the production of steam were found in sufficient quantities. The steam-engine is the parent of manufacturing towns.” (A. Redgrave in “Reports of the Insp. of Fact., 30th April, 1860,” p. 36.)

Watt’s invention was not a machine for a particular purpose but a “general agent.” Marx will say more about this in 379:2–381:0.

The greatness of Watt’s genius showed itself in the specification of the patent that he took out in April, 1784. In that specification his steam-engine is described, not as an invention for a specific purpose, but as an agent universally applicable in Mechanical Industry. In it he points out applications, many of which, as for instance, the steam-hammer, were not introduced till half a century later. Nevertheless he doubted the use of steam-engines in navigation. His successors, Boulton and Watt, sent to the exhibition of 1851 steam-engines of colossal size for ocean steamers.

↑ A modern example for a “general agent” would perhaps be the smart grid. Like Watt’s engine it is not a tool for just one particular purpose but it leads to a paradigm shift in the consumption and production of energy.

↓ (b) After discussing how the development of machinery affected the development of motive power, Marx looks now at the opposite effect: how the development of motive power acts back on the machinery. Since the newly developed more powerful motive power can drive many machines at once, the *machine system* is born. This in turn leads to the development of the transmission apparatus, the third aspect of the machine system, which was the starting point for Marx’s real definition of the machine:

381:1 As soon as tools had been converted from being manual implements of man into implements of a mechanical apparatus, of a machine, the motive mechanism also acquired an independent form, entirely emancipated from the restraints of human strength. Thereupon the individual ma-

te, um ein Wasserrad zu drehen; und obwohl nun die Einrichtung der Wassermühlen den Beginn der Auflösung des Systems der Hausindustrie bedeutete, stellten die Mühlen, die notwendigerweise an Wasserläufen gelegen sein mußten und häufig in beträchtlicher Entfernung voneinander standen, eher einen Teil eines ländlichen als eines städtischen Systems dar; erst durch die Einführung der Dampfkraft als Ersatz für den Wasserlauf wurden die Fabriken in Städten und an Orten zusammengedrängt, wo Kohle und Wasser, die zur Dampferzeugung benötigt wurden, in ausreichender Menge vorhanden waren. Die Dampfmaschine ist die Mutter der Industriestädte.“ (A. Redgrave in „Reports of the Insp. of Fact. 30th April 1860“, p. 36.)

Das große Genie Watts zeigt sich in der Spezifikation des Patents, das er April 1784 nahm, und worin seine Dampfmaschine nicht als eine Erfindung zu besondern Zwecken, sondern als allgemeiner Agent der großen Industrie geschildert wird. Er deutet hier Anwendungen an, wovon manche, wie z.B. der Dampfhammer, mehr als ein halbes Jahrhundert später erst eingeführt wurden. Jedoch bezweifelte er die Anwendbarkeit der Dampfmaschine auf Seeschifffahrt. Seine Nachfolger, Boulton und Watt, stellten 1851 die kolossalste Dampfmaschine für Ocean steamers auf der Londoner Industrieausstellung aus.

398:1/o Nachdem erst die Werkzeuge aus Werkzeugen des menschlichen Organismus in Werkzeuge eines mechanischen Apparats, der Werkzeugmaschine, verwandelt, erhielt nun auch die Bewegungsmaschine eine selbständige, von den Schranken menschlicher Kraft völlig emanzipierte Form. Da-

chine, that we have hitherto been considering, sinks into a mere factor in production by machinery. One motive mechanism was now able to drive many machines at once. The motive mechanism grows with the number of the machines that are turned simultaneously, and the transmitting mechanism becomes a wide-spreading apparatus.

mit sinkt die einzelne Werkzeugmaschine, die wir bisher betrachtet, zu einem bloßen Element der maschinenmäßigen Produktion herab. Eine Bewegungsmaschine konnte jetzt viele Arbeitsmaschinen gleichzeitig treiben. Mit der Anzahl der gleichzeitig bewegten Arbeitsmaschinen wächst die Bewegungsmaschine und dehnt sich der Transmissionsmechanismus zu einem weitläufigen Apparat aus.

Question 993 *Why did the single working or tool machine develop into a whole system of machinery?*

(c) Now let's look what is at the other end of this transmission system. It is not yet a machine system, initially it simply the summation of many equal work machines.

381:2 We now proceed to distinguish the co-operation of a number of machines of one kind from a complex system of machinery.

399:1 Es ist nun zweierlei zu unterscheiden, Kooperation vieler gleichartiger Maschinen und Maschinensystem.

↑ If co-operation of many equal machines corresponds to what Marx calls Simple Co-operation, the machine system proper corresponds to division of labor—but without the limitations of the division of labor based on handicrafts. ↓ What comes now is not a comparison but the description of a development. Marx begins with a system consisting of many machines where each individual machine processes the object of labor from beginning to end, with all machines being only part of the same organism because they are driven by the same prime mover, and then from there the development to the machine system proper where each object of labor is worked on in turn by several machines. He starts with describing one individual machine in order to emphasize that one machine produces the product from beginning to end:

381:3/o In the one case, the product is entirely made by a single machine, which performs all the various operations previously done by one handicraftsman with his tool; as, for instance, by a weaver with his loom; or by several handicraftsman successively, either separately or as members of a system of Manufacture.¹⁰⁰

399:2/o In dem einen Fall wird das ganze Machwerk von derselben Arbeitsmaschine verrichtet. Sie führt alle die verschiedenen Operationen aus, welche ein Handwerker mit seinem Werkzeug, z.B. der Weber mit seinem Webstuhl, verrichtete oder welche Handwerker mit verschiedenen Werkzeugen, sei es selbständig oder als Glieder einer Manufaktur, der Reihe nach ausführten.¹⁰⁰

↓ The footnote argues against the hypothesis that machinery first takes over those operations which had been simplified by the division of labor.

¹⁰⁰ From the standpoint of division of labor in Manufacture, weaving was not simple, but, on the contrary, complicated manual labor; and consequently the power-loom is a machine that does very complicated work. It is altogether erroneous to imagine that modern machinery originally took over those operations which had been simplified by division of labor. Spinning and

¹⁰⁰ Vom Standpunkt der manufakturmäßigen Teilung war Weben keine einfache, sondern vielmehr eine komplizierte handwerksmäßige Arbeit, und so ist der mechanische Webstuhl eine Maschine, die sehr Mannigfaltiges verrichtet. Es ist überhaupt eine falsche Vorstellung, daß die moderne Maschinerie sich ursprünglich solcher Operationen bemächtigt, welche die manu-

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weaving were, during the manufacturing period, split into new species, and the implements were specialized and improved; but the labor itself was in no way divided and retained its handicraft character. It is not the labor, but the instrument of labor, that serve as the starting-point of the machine.

fakturmäßige Teilung der Arbeit vereinfacht hatte. Spinnen und Weben wurden während der Manufakturperiode in neue Arten gesondert und ihre Werkzeugen verbessert und variiert, aber der Arbeitsprozeß selbst, in keiner Weise geteilt, blieb handwerksmäßig. Es ist nicht die Arbeit, sondern das Arbeitsmittel, wovon die Maschine ausgeht.

Question 994 *Did machinery first seize those labor processes which had been simplified in the manufactures? On what grounds does Marx, in footnote 100 to 500/o, dismiss this hypothesis as an “imagination”?*

Now back to the main text. A machine making envelopes is an example of *one* machine performing *all* steps of the production process:

For example, in the manufacture of envelopes, one man folded the paper with the folder, another laid on the gum, a third turned the flap over, on which the device is impressed, a fourth embossed the device, and so on; and for each of these operations the envelope had to change hands. One single envelope machine now performs all these operations at once, and makes more than 3,000 envelopes in an hour. In the London exhibition of 1862, there was an American machine for making paper cornets. It cut the paper, pasted, folded, and finished 300 in a minute. Here, the whole process, which, when carried on as Manufacture, was split up into, and carried out by, a series of operations, is completed by a single machine, working a combination of various tools.

Z.B. in der modernen Manufaktur von Briefkuverts faltete ein Arbeiter das Papier mit dem Falzbein, ein anderer legte den Gummi auf, ein dritter schlug die Klappe um, auf welche die Devise aufgedrückt wird, ein vierter bossierte die Devise usw., und bei jeder dieser Teiloperationen mußte jede einzelne Enveloppe die Hände wechseln. Eine einzige Enveloppemaschine verrichtet alle diese Operationen auf einen Schlag und macht 3000 und mehr Enveloppes in einer Stunde. Eine auf der Londoner Industrieausstellung von 1862 ausgestellte amerikanische Maschine zur Bereitung von Papiertüten schneidet das Papier, kleistert, faltet und vollendet 300 Stück per Minute. Der innerhalb der Manufaktur geteilte und in einer Reihenfolge ausgeführte Gesamtprozeß wird hier von einer Arbeitsmaschine vollbracht, die durch Kombination verschiedener Werkzeuge wirkt.

↑ The emphasis is on *one*; the entire production process is done by *one* machine.

Question 995 *Term Paper Group Registration*

Question 996 *Why is it the instrument of labor, and not the labor, that serves as the starting-point of the machine?*

↓ Factories, at the beginning, were simply the addition of many of these machines in the same premises:

Now, whether such a machine be merely a reproduction of a complicated manual implement, or a combination of various simple implements specialized by Manufacture, in either case, in the factory, *i.e.*, in the

Ob nun eine solche Arbeitsmaschine nur mechanische Wiedergeburt eines komplizierteren Handwerkszeuges sei oder Kombination verschiedenartiger, manufakturmäßig partikularisierter einfacher Instrumente—in

workshop in which machinery alone is used, we meet again with simple co-operation; and, leaving the workman out of consideration for the moment, this co-operation presents itself to us, in the first instance, as the conglomeration in one place of similar and simultaneously acting machines. Thus, a weaving factory is constituted of a number of power-looms, working side by side, and a sewing factory of a number of sewing-machines all in the same building.

↓ The only element where they were from the beginning more than an addition (at Marx's time) was the shared prime mover from which they received their motive power.

But there is here a technical oneness in the whole system, owing to all the machines receiving their impulse simultaneously, and in an equal degree, from the pulsations of the common prime mover, by the intermediary of the transmitting mechanism; and this mechanism, to a certain extent, is also common to them all, since only particular ramifications of it branch off to each machine. Just as a number of tools, then, form the organs of a machine, so a number of machines of one kind constitute the organs of the motive mechanism.

↑ This is the beginning of an integration ↓ which is deepened in the machine system in the true sense of the word:

382:1/oo A system of machinery in the true sense of the word, however, does not take the place of these independent machines, until the object of labor goes through a connected series of detail processes, that are carried out by a chain of machines of various kinds, the one supplementing the other. Here we have again the co-operation by division of labor that characterizes Manufacture; only now, it is a combination of detail machines. The special tools of the various detail workmen, such as those of the beaters, cambers, spinners, etc., in the woollen manufacture, are now transformed into the tools of specialized machines, each machine constituting a special organ, with a special function, in the system. In those branches of industry in which the machinery system is first introduced, Manufacture itself furnishes, in a general way, the natural

der Fabrik, d.h. in der auf Maschinenbetrieb gegründeten Werkstatt, erscheint jedesmal die einfache Kooperation wieder, und zwar zunächst (wir sehn hier vom Arbeiter ab) als räumliche Konglomeration gleichartiger und gleichzeitig zusammenwirkender Arbeitsmaschinen. So wird eine Webfabrik durch das Nebeneinander vieler mechanischen Webstühle und eine Nähfabrik durch das Nebeneinander vieler Nähmaschinen in demselben Arbeitsgebäude gebildet.

Aber es existiert hier eine technische Einheit, indem die vielen gleichartigen Arbeitsmaschinen gleichzeitig und gleichmäßig ihren Impuls empfangen vom Herzschlag des gemeinsamen ersten Motors, auf sie übertragen durch den Transmissionsmechanismus, der ihnen auch teilweise gemeinsam ist, indem sich nur besondere Ausläufe davon für jede einzelne Werkzeugmaschine verästeln. Ganz wie viele Werkzeuge die Organe einer Arbeitsmaschine, bilden viele Arbeitsmaschinen jetzt nur noch gleichartige Organe desselben Bewegungsmechanismus.

400:1/oo Ein eigentliches Maschinensystem tritt aber erst an die Stelle der einzelnen selbständigen Maschine, wo der Arbeitsgegenstand eine zusammenhängende Reihe verschiedener Stufenprozesse durchläuft, die von einer Kette verschiedenartiger, aber einander ergänzender Werkzeugmaschinen ausgeführt werden. Hier erscheint die der Manufaktur eigentümliche Kooperation durch Teilung der Arbeit wieder, aber jetzt als Kombination von Teilarbeitsmaschinen. Die spezifischen Werkzeuge der verschiedenen Teilarbeiter, in der Wollmanufaktur z.B. der Wollschläger, Wollkammer, Wollscherer, Wollspinner usw., verwandeln sich jetzt in die Werkzeuge spezifizierter Arbeitsmaschinen, von denen jede ein besonderes Organ für eine besondere Funktion im System des kombinierten Werkzeugmechanismus bildet. Die Manufaktur selbst liefert dem

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basis for the division, and consequent organisation, of the process of production.¹⁰¹

Maschinensystem in den Zweigen, worin es zuerst eingeführt wird, im großen und ganzen die naturwüchsige Grundlage der Teilung und daher der Organisation des Produktionsprozesses.¹⁰¹

↑ The principles of the division of labor were inherited from the manufactories. ↓ The footnote says generally how different branches of industry learn from each other.

¹⁰¹ Before the epoch of Mechanical Industry, the wool manufacture was the predominating manufacture in England. Hence it was in this industry that, in the first half of the 18th century, the most experiments were made. Cotton, which required less careful preparation for its treatment by machinery, derived the benefit of the experience gained on wool, just as afterwards the manipulation of wool by machinery was developed on the lines of cotton-spinning and weaving by machinery. It was only during the 10 years immediately preceding 1866, that isolated details of the wool manufacture, such as woolcombing, were incorporated in the factory system. "The application of power to the process of combing wool ... extensively in operation since the introduction of the combingmachine, especially Lister's ... undoubtedly had the effect of throwing a very large number of men out of work. Wool was formerly combed by hand, most frequently in the cottage of the comber. It is now very generally combed in the factory, and hand-labor is superseded, except in some particular kinds of work, in which hand-combed wool is still preferred. Many of the hand-combers found employment in the factories, but the produce of the hand-combers bears so small a proportion to that of the machine, that the employment of a very large number of combers has passed away." ("Rep. of Insp. of Fact. for 31st Oct., 1856," p. 16.)

¹⁰¹ Vor der Epoche der großen Industrie war die Wollmanufaktur die herrschende Manufaktur Englands. In ihr wurden daher während der ersten Hälfte des 18. Jahrhunderts die meisten Experimente gemacht. Der Baumwolle, deren mechanische Verarbeitung minder mühevoller Vorbereitungen erfordert, kamen die an der Schafwolle gemachten Erfahrungen zugute, wie später umgekehrt die mechanische Wollindustrie sich auf Grundlage der mechanischen Baumwollspinnerei und Weberei entwickelt. Einzelne Elemente der Wollmanufaktur sind erst seit den letzten Jahrzehnten dem Fabrikssystem einverleibt worden, z.B. das Wollkämmen. „Die Anwendung mechanischer Kraft auf den Prozeß des Wollkämmens ... , die seit der Einführung der „Kämmaschine“, speziell der Listerschen, in großem Ausmaß erfolgt ... , hatte unzweifelhaft die Wirkung, daß eine große Anzahl von Arbeitern aus der Arbeit geworfen wurde. Wolle wurde vorher mit der Hand gekämmt, zumeist in der Cottage des Kämmers. Jetzt wird sie ganz allgemein in der Fabrik gekämmt, und Handarbeit ist, abgesehen von einigen besonderen Arten von Arbeit, bei denen handgekämmte Wolle noch vorgezogen wird, verdrängt worden. Viele von den Handkämmern fanden Arbeit in den Fabriken, aber das Arbeitsprodukt des Handkammers ist im Verhältnis zu dem der Maschine so klein, daß eine sehr große Zahl von Kämmern ohne Beschäftigung geblieben ist.“ „Rep. of Insp. of Fact. for 31st Oct. 1856“, p. 16.)

↓ One big difference between the system in the manufactories and these fully mechanized systems is that the stages in this system are no longer tied to human capabilities. The process is no longer subjective:

Nevertheless an essential difference at once manifests itself. In Manufacture it is the workmen who, with their manual implements, must, either singly or in groups, carry on each particular detail process. If, on the one hand, the workman becomes adapted to the process, on the other, the process was previously made suitable to the

Indes tritt sofort ein wesentlicher Unterschied ein. In der Manufaktur müssen Arbeiter, vereinzelt oder in Gruppen, jeden besonderen Teilprozeß mit ihrem Handwerkszeug ausführen. Wird der Arbeiter dem Prozeß angeeignet, so ist aber auch vorher der Prozeß dem Arbeiter angepaßt. Dies subjektive Prinzip der Teilung fällt weg für

workman. This subjective principle of the division of labor no longer exists in production by machinery. Here, the process as a whole is examined objectively, in itself, that is to say, without regard to the question of its execution by human hands, it is analysed into its constituent phases; and the problem, how to execute each detail process, and bind them all into a whole, is solved by the aid of machines, chemistry, etc.¹⁰² But, of course, in this case also, theory must be perfected by accumulated experience on a large scale. Each detail machine supplies raw material to the machine next in order; and since they are all working at the same time, the product is always going through the various stages of its fabrication, and is also constantly in a state of transition, from one phase to another. Just as in Manufacture, the direct co-operation of the detail laborers establishes a numerical proportion between the special groups, so in an organised system of machinery, where one detail machine is constantly kept employed by another, a fixed relation is established between their numbers, their size, and their speed.

¹⁰² "The principle of the factory system, then, is to substitute ... the partition of a process into its essential constituents, for the division or graduation of labour among artisans." (Andrew Ure: "The Philosophy of Manufactures," Lond., 1835, p. 20.)

↑ The processes must be adjusted so that their quantitative throughput fits together. ↓ The removal of the human element from this system allows the processes to become more and more continuous:

The collective machine, now an organised system of various kinds of single machines, and of groups of single machines, becomes more and more perfect, the more the process as a whole becomes a continuous one, i.e., the less the raw material is interrupted in its passage from its first phase to its last; in other words, the more its passage from one phase to another is effected, not by the hand of man, but by the machinery itself. In Manufacture the isolation of each detail process is a condition imposed by the nature of division of labor, but in the fully developed

die maschinenartige Produktion. Der Gesamtprozeß wird hier objektiv, an und für sich betrachtet, in seine konstituierenden Phasen analysiert, und das Problem, jeden Teilprozeß auszuführen und die verschiedenen Teilprozesse zu verbinden, durch technischen Anwendung der Mechanik, Chemie usw. gelöst,¹⁰² wobei natürlich nach wie vor die theoretische Konzeption durch gehäufte praktische Erfahrung auf großer Stufenleiter vervollkommenet werden muß. Jede Teilmaschine liefert der zunächst folgenden ihr Rohmaterial, und da sie alle gleichzeitig wirken, befindet sich das Produkt ebenso fortwährend auf den verschiedenen Stufen seines Bildungsprozesses, wie im Übergang aus einer Produktionsphase in die andre. Wie in der Manufaktur die unmittelbare Kooperation der Teilarbeiter bestimmte Verhältniszahlen zwischen den besondern Arbeitergruppen schafft, so in dem gegliederten Maschinensystem die beständige Beschäftigung der Teilmaschinen durch einander ein bestimmtes Verhältnis zwischen ihrer Anzahl, ihrem Umfang und ihrer Geschwindigkeit.

¹⁰² „Das Prinzip des Fabriksystems besteht also darin ... die Teilung des Arbeitsprozesses in seine wesentlichen Bestandteile an die Stelle der Verteilung oder Abstufung der Arbeit unter die einzelnen Handwerker zu setzen.“ (Ure, l.c. p. 20.)

Die kombinierte Arbeitsmaschine, jetzt ein gegliedertes System von verschiedenartigen einzelnen Arbeitsmaschinen und von Gruppen derselben, ist um so vollkommener, je kontinuierlicher ihr Gesamtprozeß, d.h. mit je weniger Unterbrechung das Rohmaterial von seiner ersten Phase zu seiner letzten übergeht, je mehr also statt der Menschenhand der Mechanismus selbst es von einer Produktionsphase in die andre fördert. Wenn in der Manufaktur die Isolierung der Sonderprozesse ein durch die Teilung der Arbeit selbst gegebenes Prinzip

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factory the continuity of those processes is, on the contrary, imperative.

↑ Marx deepens here the opposition between manufactory division of labor and machinery: not only development of the labor process versus development of the instrument of labor, but also isolation of the particular processes versus their continuity. ↓ The whole of these parts, integrated by its dependence on the prime mover, is the automaton. But the human element re-enters in the need for human control:

384:1 A system of machinery, whether it reposes on the mere co-operation of similar machines, as in weaving, or on a combination of different machines, as in spinning, constitutes in itself a huge automaton, whenever it is driven by a self-acting prime mover. But although the factory as a whole be driven by its steam-engine, yet either some of the individual machines may require the aid of the workman for some of their movements (such aid was necessary for the running in of the mule carriage, before the invention of the self-acting mule, and is still necessary in fine-spinning mills); or, to enable a machine to do its work, certain parts of it may require to be handled by the workman like a manual tool; this was the case in machine-makers' workshops, before the conversion of the slide rest into a self-actor. As soon as a machine executes, without man's help, all the movements requisite to elaborate the raw material, needing only attendance from him, we have an automatic system of machinery, and one that is susceptible of constant improvement in its details. Such improvements as the apparatus that stops a drawing frame, whenever a sliver breaks, and the self-acting stop, that stops the power-loom so soon as the shuttle bobbin is emptied of weft, are quite modern inventions.

ist, so herrscht dagegen in der entwickelten Fabrik die Kontinuität der Sonderprozesse.

401:1/o Ein System der Maschinerie, beruhe es nun auf bloßer Kooperation gleichartiger Arbeitsmaschinen, wie in der Weberei, oder auf einer Kombination verschiedenartiger, wie in der Spinnerei, bildet an und für sich einen großen Automaten, sobald es von einem sich selbst bewegenden ersten Motor getrieben wird. Indes kann das Gesamtsystem z.B. von der Dampfmaschine getrieben werden, obgleich entweder einzelne Werkzeugmaschinen für gewisse Bewegungen noch den Arbeiter brauchen, wie die zum Einfahren der Mule nötige Bewegung vor der Einführung der selfacting mule und immer noch bei Feinspinnerei, oder aber bestimmte Teile der Maschine zur Verrichtung ihres Werks gleich einem Werkzeug vom Arbeiter gelenkt werden müssen, wie beim Maschinenbau vor der Verwandlung des slide rest (ein Drehapparat) in einen selfactor. Sobald die Arbeitsmaschine alle zur Bearbeitung des Rohstoffs nötigen Bewegungen ohne menschliche Beihilfe verrichtet und nur noch menschlicher Nachhilfe bedarf, haben wir ein automatisches System der Maschinerie, das indes beständiger Ausarbeitung im Detail fähig ist. So sind z.B. der Apparat, der die Spinnmaschine von selbst stillsetzt, sobald ein einzelner Faden reißt, und der selfacting stop, der den verbesserten Dampfwebstuhl stillsetzt, sobald der Spule des Weberschiffs der Einschlagsfaden ausgeht, ganz moderne Erfindungen.

Why the paper industry is such a good example:

As an example, both of continuity of production, and of the carrying out of the automatic principle, we may take a modern paper mill. In the paper industry generally, we may advantageously study in detail not only the distinctions between modes of produc-

Als Beispiel sowohl der Kontinuität der Produktion als der Durchführung des automatischen Prinzips kann die moderne Papierfabrik gelten. An der Papierproduktion kann überhaupt der Unterschied verschiedener Produktionsweisen, auf Basis verschied-

tion based on different means of production, but also the connexion of the social conditions of production with those modes: for the old German paper-making furnishes us with a sample of handicraft production; that of Holland in the 17th and of France in the 18th century with a sample of manufacturing in the strict sense; and that of modern England with a sample of automatic fabrication of this article. Besides these, there still exist, in India and China, two distinct antique Asiatic forms of the same industry.

ner Produktionsmittel, wie der Zusammenhang der gesellschaftlichen Produktionsverhältnisse mit diesen Produktionsweisen, im einzelnen vorteilhaft studiert werden, da uns die ältere deutsche Papiermacherei Muster der handwerksmäßigen Produktion, Holland im 17. und Frankreich im 18. Jahrhundert Muster der eigentlichen Manufaktur und das moderne England Muster der automatischen Fabrikation in diesem Zweig liefern, außerdem in China und Indien noch zwei verschiedene altasiatische Formen derselben Industrie existieren.

↓ At the end a description of a fully-developed machine system at Marx's time:

384:2/o An organised system of machines, to which motion is communicated by the transmitting mechanism from a central automaton, is the most developed form of production by machinery. Here we have, in the place of the isolated machine, a mechanical monster whose body fills whole factories, and whose demon power, at first veiled under the slow and measured motions of his giant limbs, at length breaks out into the fast and furious whirl of his countless working organs.

402:1 Als gegliedertes System von Arbeitsmaschinen, die ihre Bewegung nur vermittelt der Transmissionsmaschinerie von einem zentralen Automaten empfangen, besitzt der Maschinenbetrieb seine entwickeltste Gestalt. An die Stelle der einzelnen Maschine tritt hier ein mechanisches Ungeheuer, dessen Leib ganze Fabrikgebäude füllt und dessen dämonische Kraft, erst versteckt durch die fast feierlich gemeßene Bewegung seiner Riesenglieder, im fieberhaft tollenden Wirbeltanz seiner zahllosen eigentlichen Arbeitsorgane ausbricht.

15.1.d. [Development of Industries Producing Machines, Demand for Machines, Transportation and Communication]

Each such system of machines must itself be produced. This necessity generates additional developmental impulses not only for the machine systems themselves, but for the economy in which these machine systems are embedded.

Of course, the first machines were not produced by specialists who would only produce machines, but by workers who had obtained their skills from producing other things in artisan workshops or manufactures.

↓ The very first sentence here is an echo of 52:4/o:

385:1/o There were mules and steam-engines before there were any laborers, whose exclusive occupation it was to make mules and steam-engines; just as men wore clothes before there were such people as tailors. The inventions of Vaucanson, Arkwright, Watt, and others, were, however, practicable, only because those inventors found, ready to hand, a considerable num-

402:2/oo Es gab Mules, Dampfmaschinen usw., bevor es Arbeiter gab, deren ausschließliches Geschäft es war, Dampfmaschinen, Mules usw. zu machen, ganz wie der Mensch Kleider trug, bevor es Schneider gab. Die Erfindungen von Vaucanson, Arkwright, Watt usw. waren jedoch nur ausführbar, weil jene Erfinder ein von der Manufakturperiode fertig geliefertes und be-

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ber of skilled mechanical workmen, placed at their disposal by the manufacturing period. Some of these workmen were independent handicraftsmen of various trades, others were grouped together in manufactures, in which, as before-mentioned, division of labor was strictly carried out.

This dependence of machinery on handicraft labor and manufactories (manual division of labor) is a contradiction. It first leads to changes in the manufactories themselves.

As inventions increased in number, and the demand for the newly discovered machines grew larger, the machine-making industry split up, more and more, into numerous independent branches, and division of labor in these manufactures was more and more developed. Here, then, we see in Manufacture the immediate technical foundation of Modern Industry. Manufacture produced the machinery, by means of which Modern Industry abolished the handicraft and manufacturing systems in those spheres of production that it first seized upon.

But these changes are not enough; manual division of labor is too narrow a basis for machinery and must eventually be abolished.

The factory system was therefore raised, in the natural course of things, on an inadequate foundation. When the system attained to a certain degree of development, it had to root up this ready-made foundation, which in the meantime had been elaborated on the old lines, and to build up for itself a basis that should correspond to its methods of production. Just as the individual machine retains a dwarfish character, so long as it is worked by the power of man alone, and just as no system of machinery could be properly developed before the steam-engine took the place of the earlier motive powers, animals, wind, and even water; so, too, Modern Industry was crippled in its complete development, so long as its characteristic instrument of production, the machine, owed its existence to personal strength and personal skill, and depended on the muscular development, the keenness of sight, and the cunning of hand, with which the detail workmen in manufactures, and the manual la-

trächtliches Quantum geschickter mechanischer Arbeiter vorhanden. Ein Teil dieser Arbeiter bestand aus selbständigen Handwerkern verschiedener Profession, ein anderer Teil war in Manufakturen vereinigt, worin, wie früher erwähnt, die Teilung der Arbeit mit besondrer Strenge waltete.

Mit der Zunahme der Erfindungen und der wachsenden Nachfrage nach den neu erfundenen Maschinen entwickelte sich mehr und mehr einerseits die Sondrung der Maschinenfabrikation in mannigfaltige selbständige Zweige, andererseits die Teilung der Arbeit im Innern der maschinenbauenden Manufakturen. Wir erblicken hier also in der Manufaktur die unmittelbare technische Grundlage der großen Industrie. Jene produzierte die Maschinerie, womit diese in den Produktionssphären, die sie zunächst ergriff, den handwerks- und manufakturmäßigen Betrieb aufhob.

Der Maschinenbetrieb erhob sich also naturwüchsig auf einer ihm unangemeßenen materiellen Grundlage. Auf einem gewissen Entwicklungsgrad mußte er diese erst fertig vorgefundne und dann in ihrer alten Form weiter ausgearbeitete Grundlage selbst umwälzen und sich eine seiner eignen Produktionsweise entsprechende neue Basis schaffen. Wie die einzelne Maschine zwergmäßig bleibt, solange sie nur durch Menschen bewegt wird, wie das Maschinensystem sich nicht frei entwickeln konnte, bevor an die Stelle der vorgefundenen Triebkräfte—Tier, Wind und selbst Wasser—die Dampfmaschine trat, ebenso war die große Industrie in ihrer ganzen Entwicklung gelähmt, solange ihr charakteristisches Produktionsmittel, die Maschine selbst, persönlicher Kraft und persönlichem Geschick seine Existenz verdankte, also abhing von der Muskelentwicklung, der Schärfe des Blicks und der Virtuosität der Hand, womit der Teilarbeiter in der Manu-

borers in handicrafts, wielded their dwarfish implements’.

faktur und der Handwerker außerhalb derselben ihr Zwerginstrument führten.

↑ In this last overlong sentence, Marx already identifies the concrete element which held the development back: the human element, which was increasingly removed from the mechanized labor process itself, still lingered in the production process of the machinery. (Marx also mentions the steam engine, without showing awareness that he is really talking about the fossil fuel bonanza.) ↓ The incoherent lingering of the human element makes itself felt in the following manner:

Thus, apart from the dearness of the machines made in this way, a circumstance that is ever present to the mind of the capitalist, the expansion of industries carried on by means of machinery, and the invasion by machinery of fresh branches of production, were dependent on the growth of a class of workmen, who, owing to the almost artistic nature of their employment, could increase their numbers only gradually, and not by leaps and bounds.

Abgesehn von der Verteuerung der Maschinen infolge dieser Ursprungsweise—ein Umstand, welcher das Kapital als bewußtes Motiv beherrscht—blieb so die Ausdehnung der bereits maschinenmäßig betriebenen Industrie und das Eindringen der Maschinerie in neue Produktionszweige rein bedingt durch das Wachstum einer Arbeiterkategorie, die wegen der halbkünstlerischen Natur ihres Geschäfts nur allmählich und nicht sprungweis vermehrt werden konnte.

↑ Two things were hindering the extension of machinery. One was: machines built by hand were too expensive. This obstacle imposed itself on capital as a conscious motive, capitalists were aware of this and this impeded their will to expand. The other obstacle worked more in the background, automatically, namely the number of workers skilled enough to produce machines could be increased only gradually, because these skills were almost an art. (Parallels to computer programming in recent decades.)

↓ But this is only the economic side of it. The basis is also too narrow technologically:

But besides this, at a certain stage of its development, Modern Industry became technologically incompatible with the basis furnished for it by handicraft and Manufacture. The increasing size of the prime movers, of the transmitting mechanism, and of the machines proper, the greater complication, multiformity and regularity of the details of these machines, as they more and more departed from the model of those originally made by manual labor, and acquired a form, untrammelled except by the conditions under which they worked,¹⁰³ the perfecting of the automatic system, and the use, every day more unavoidable, of a more refractory material, such as iron instead of wood—the solution of all these problems, which sprang up by the force of circumstances, everywhere met with a stumbling-block in the personal restrictions, which even the collective laborer of Manufacture could not break

Aber auf einer gewissen Entwicklungsstufe geriet die große Industrie auch technisch in Widerstreit mit ihrer handwerks- und manufakturmäßigen Unterlage. Ausreckung des Umfangs der Bewegungsmaschinen, des Transmissionsmechanismus und der Werkzeugmaschinen, größere Komplikation, Mannigfaltigkeit und strengere Regelmäßigkeit ihrer Bestandteile, im Maße wie die Werkzeugmaschine sich von dem handwerksmäßigen Modell, das ihren Bau ursprünglich beherrscht, losriß und eine freie, nur durch ihre mechanische Aufgabe bestimmte Gestalt erhielt,¹⁰³ Ausbildung des automatischen Systems und stets unvermeidlichere Anwendung von schwer zu bewältigendem Material, z.B. Eisen statt Holz—die Lösung aller dieser naturwüchsigen entspringenden Aufgaben stieß überall auf die persönlichen Schranken, die auch das in der Manufaktur kombinierte Arbeiterperso-

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through, except to a limited extent. Such machines as the modern hydraulic press, the modern power-loom, and the modern carding engine, could never have been furnished by Manufacture.

Here again Marx comments on it how these obstacles impose themselves: by spontaneously arising tasks and problems.

¹⁰³ The power-loom was at first made chiefly of wood; in its improved modern form it is made of iron. To what an extent the old forms of the instruments of production influenced their new forms at first starting, is shown by, amongst other things, the most superficial comparison of the present power-loom with the old one, of the modern blowing apparatus of a blast-furnace with the first inefficient mechanical reproduction of the ordinary bellows, and perhaps more strikingly than in any other way, by the attempts before the invention of the present locomotive, to construct a locomotive that actually had two feet, which after the fashion of a horse, it raised alternately from the ground. It is only after considerable development of the science of mechanics, and accumulated practical experience, that the form of a machine becomes settled entirely in accordance with mechanical principles, and emancipated from the traditional form of the tool that gave rise to it.

Not only from the side of production but also from the utilization of machinery: machinery necessarily spreads from one branch of production to another.

386:1/o A radical change in the mode of production in one sphere of industry involves a similar change in other spheres. This happens at first in such branches of industry as are connected together by being separate phases of a process, and yet are isolated by the social division of labor, in such a way, that each of them produces an independent commodity. Thus spinning by machinery made weaving by machinery a necessity, and both together made the mechanical and chemical revolution that took place in bleaching, printing, and dyeing, imperative. So too, on the other hand, the revolution in cotton-spinning called forth the invention of the gin, for separating the seeds from the cotton fibre; it was only by means of this invention, that the production of cot-

nal nur dem Grad, nicht dem Wesen nach durchbricht. Maschinen z.B. wie die moderne Druckerpresse, der moderne Dampfwebstuhl und die moderne Kardiermaschine, konnten nicht von der Manufaktur geliefert werden.

¹⁰³ Der mechanische Webstuhl in seiner ersten Form besteht hauptsächlich aus Holz, der verbesserte, moderne, aus Eisen. Wie sehr im Anfang die alte Form des Produktionsmittels seine neue Form beherrscht, zeigt u.a. die oberflächlichste Vergleichung des modernen Dampfwebstuhls mit dem alten, der modernen Blasinstrumente in Eisengießereien mit der ersten unbehilflichen mechanischen Wiedergeburt des gewöhnlichen Blasbalgs, und vielleicht schlagender als alles andre eine vor der Erfindung der jetzigen Lokomotiven versuchte Lokomotive, die in der Tat zwei Füße hatte, welche sie abwechselnd wie ein Pferd aufhob. Erst nach weiterer Entwicklung der Mechanik und gehäufte praktischer Erfahrung wird die Form gänzlich durch das mechanische Prinzip bestimmt und daher gänzlich emanzipiert von der überlieferten Körperform des Werkzeugs, das sich zur Maschine entpuppt.

404:1/o Die Umwälzung der Produktionsweise in einer Sphäre der Industrie bedingt ihre Umwälzung in der andren. Es gilt dies zunächst für solche Industriezweige, welche zwar durch die gesellschaftliche Teilung der Arbeit isoliert sind, so daß jeder derselben eine selbständige Ware produziert, sich aber dennoch als Phasen eines Gesamtprozesses verschlingen. So machte die Maschinenspinnerei Maschinenweberei nötig und beide zusammen die mechanisch-chemische Revolution in der Bleicherei, Druckerei und Färberei. So rief andererseits die Revolution in der Baumwollspinnerei die Erfindung des gin zur Trennung der Baumwollfaser vom Samen hervor, womit erst die Baumwollproduktion auf dem nun erheischten großen Maßstab möglich

ton became possible on the enormous scale at present required.¹⁰⁴

¹⁰⁴ Eli Whitney's cotton gin had until very recent times undergone less essential changes than any other machine of the 18th century. It is only during the last decade (i.e., since 1856) that another American, Mr. Emery, of Albany, New York, has rendered Whitney's gin antiquated by an improvement as simple as it is effective.

ward.¹⁰⁴

¹⁰⁴ Des Yankee Eli Whitney cottongin war bis zur neuesten Zeit im wesentlichen weniger verändert worden als irgendeine andre Maschine des 18. Jahrhunderts. Erst in den letzten Decennien (vor 1867) hat ein anderer Amerikaner, Herr Emery von Albany, New York, Whitneys Maschine durch eine ebenso einfache als wirksame Verbeßrung antiquiert.

↓ The volume and speed of machine production also calls for improved means of transport and communication.

But more especially, the revolution in the modes of production of industry and agriculture made necessary a revolution in the general conditions of the social process of production, i.e., in the means of communication and of transport. In a society whose pivot, to use an expression of Fourier, was agriculture on a small scale, with its subsidiary domestic industries, and the urban handicrafts, the means of communication and transport were so utterly inadequate to the productive requirements of the manufacturing period, with its extended division of social labor, its concentration of the instruments of labor, and of the workmen, and its colonial markets, that they became in fact revolutionised. In the same way the means of communication and transport handed down from the manufacturing period soon became unbearable trammels on Modern Industry, with its feverish haste of production, its enormous extent, its constant flinging of capital and labor from one sphere of production into another, and its newly-created connexions with the markets of the whole world. Hence, apart from the radical changes introduced in the construction of sailing vessels, the means of communication and transport became gradually adapted to the modes of production of mechanical industry, by the creation of a system of river steamers, railways, ocean steamers, and telegraphs. But the 'huge masses of iron that had now to be forged, to be welded, to be cut, to be bored, and to be shaped, demanded, on their part, cyclopean

Die Revolution in der Produktionsweise der Industrie und Agrikultur ernöthigte namentlich aber auch eine Revolution in den allgemeinen Bedingungen des gesellschaftlichen Produktionsprozesses, d.h. den Kommunikations- und Transportmitteln. Wie die Kommunikations- und Transportmittel einer Gesellschaft, deren Pivot, um mich eines Ausdrucks Fouriers zu bedienen, die kleine Agrikultur mit ihrer häuslichen Nebenindustrie und das städtische Handwerk waren, den Produktionsbedürfnissen der Manufakturperiode mit ihrer erweiterten Theilung der gesellschaftlichen Arbeit, ihrer Konzentration von Arbeitsmitteln und Arbeitern und ihren Kolonialmärkten durchaus nicht mehr genügen konnten, daher auch in der That umgewälzt wurden, so verwandelten sich die von der Manufakturperiode überlieferten Transport- und Kommunikationsmittel bald in unerträgliche Hemmschuhe für die große Industrie mit ihrer fieberhaften Geschwindigkeit der Produktion, ihrer massenhaften Stufenleiter, ihrem beständigen Werfen von Kapital- und Arbeitermassen aus einer Produktionssphäre in die andre und ihren neugeschaffnen weltmarktlichen Zusammenhängen. Abgesehn von ganz umgewälztem Segelschiffbau, wurde das Kommunikations- und Transportwesen daher allmählich durch ein System von Flußdampfschiffen, Eisenbahnen, ozeanischen Dampfschiffen und Telegraphen der Produktionsweise der großen Industrie angepaßt. Die furchtbaren Eisenmassen aber, die jetzt zu schmieden, zu schweißen, zu

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machines, for the construction of which the methods of the manufacturing period were utterly inadequate.

schneiden, zu bohren und zu formen waren, erforderten ihrerseits zyklische Maschinen, deren Schöpfung der manufakturmäßige Maschinenbau versagte.

↑ Extension and regularization of transport was already necessary for specialization, see [Wri10, p. 30:2–32]. Did Marx say that in chapter Fourteen? Among the infrastructure requirements Marx should also have mentioned the availability of energy.

This contradiction requires machinery to be produced by machinery. Only then can machinery “stand on its own feet”. Today we see a similar situation in computer programming: only after computers learn to program computers, instead of people having to do this, will computers truly stand on their own feet.

387:1/o Modern Industry had therefore itself to take in hand the machine, its characteristic instrument of production, and to construct machines by machines. It was not till it did this, that it built up for itself a fitting technical foundation, and stood on its own feet. Machinery, simultaneously with the increasing use of it, in the first decades of this century, appropriated, by degrees, the fabrication of machines proper. But it was only during the decade preceding 1866, that the construction of railways and ocean steamers on a stupendous scale called into existence the cyclopean machines now employed in the construction of prime movers.

405:1 Die große Industrie mußte sich also ihres charakteristischen Produktionsmittels, der Maschine selbst, bemächtigen und Maschinen durch Maschinen produzieren. So erst schuf sie ihre adäquate technische Unterlage und stellte sich auf ihre eignen Füße. Mit dem wachsenden Maschinenbetrieb in den ersten Dezennien des 19. Jahrhunderts bemächtigte sich die Maschinerie in der Tat allmählich der Fabrikation der Werkzeugmaschinen. Jedoch erst während der letztverfloßnen Dezennien riefen ungeheurer Eisenbahnbau und ozeanische Dampfschiffahrt die zur Konstruktion von ersten Motoren angewandten zyklischen Maschinen ins Leben.

Question 997 *Why did the introduction of machinery soon require machines to be produced by machines?*

Technical conditions to make this possible:

388:1–2 The most essential condition to the production of machines by machines was a prime mover capable of exerting any amount of force, and yet under perfect control. Such a condition was already supplied by the steam-engine.

405:2–406:1 Die wesentlichste Produktionsbedingung für die Fabrikation von Maschinen durch Maschinen war eine jeder Kraftpotenz fähige und doch zugleich ganz kontrollierbare Bewegungsmaschine. Sie existierte bereits in der Dampfmaschine.

↑ The steam-engine alone is not enough; you also need a source of abundant and concentrated energy. Marx does not seem to be aware of this.

But at the same time it was necessary to produce the geometrically accurate straight lines, planes, circles, cylinders, cones, and spheres, required in the detail parts of the machines. This problem Henry Maudsley solved in the first decade of this century by the invention of the slide rest, a tool that was soon made automatic, and in a mod-

Aber es galt zugleich die für die einzelnen Maschinenteile nötigen streng geometrischen Formen wie Linie, Ebene, Kreis, Zylinder, Kegel und Kugel maschinenmäßig zu produzieren. Dies Problem löste Henry Maudslay im ersten Dezennium des 19. Jahrhunderts durch die Erfindung des slidere, der bald automatisch gemacht und in

ified form was applied to other constructive machines besides the lathe, for which it was originally intended. This mechanical appliance replaces, not some particular tool, but the hand itself, which produces a given form by holding and guiding the cutting tool along the iron or other material operated upon. Thus it became possible to produce the forms of the individual parts of machinery

modifizierter Form von der Drechselbank, wofür er zuerst bestimmt war, auf andre Konstruktionsmaschinen übertragen wurde. Diese mechanische Vorrichtung ersetzt nicht irgendein besondres Werkzeug, sondern die menschliche Hand selbst, die eine bestimmte Form hervorbringt, durch Vorhalten Anpassen und Richtung der Schärfe von Schneideinstrumenten usw. gegen oder über das Arbeitsmaterial, z.B. Eisen. So gelang es, die geometrischen Formen der einzelnen Maschinenteile

“with a degree of ease, accuracy, and speed, that no accumulated experience of the hand of the most skilled workman could give.”¹⁰⁵

„mit einem Grad von Leichtigkeit, Genauigkeit und Raschheit zu produzieren, den keine gehäufte Erfahrung der Hand des geschicktesten Arbeiters verleihen konnte“.¹⁰⁵

¹⁰⁵ „The Industry of Nations,” Lond., 1855, Part II., p. 239. This work also remarks: ‘Simple and outwardly unimportant as this appendage to lathes may appear, it is not, we believe, averring too much to state, that its influence in improving and extending the use of machinery has been as great as that produced by Watt’s improvements of the steam-engine itself. Its introduction went at once to perfect all machinery, to cheapen it, and to stimulate invention and improvement.’

¹⁰⁵ „The Industry of Nations“, Lond. 1855, Part II., p. 239. Es heißt ebendasselbst: „So einfach und äußerlich unbedeutend, wie dieses Zubehör zur Drehbank erscheinen mag, glauben wir doch nicht zu viel zu behaupten, wenn wir feststellen, daß sein Einfluß auf die bessere und ausgedehntere Verwendung von Maschinen ebenso groß gewesen ist wie der, den Watts Verbesserungen der Dampfmaschine hervorgerufen haben. Seine Einführung hatte sofort eine Vervollkommenung und Verbilligung aller Maschinen zur Folge und trieb zu weiteren Erfindungen und Verbesserungen.“

388:3/o If we now fix our attention on that portion of the machinery employed in the construction of machines, which constitutes the operating tool, we find the manual implements re-appearing, but on a cyclopean scale. The operating part of the boring machine is an immense drill driven by a steam-engine; without this machine, on the other hand, the cylinders of large steam-engines and of hydraulic presses could not be made. The mechanical lathe is only a cyclopean reproduction of the ordinary foot-lathe; the planing machine, an iron carpenter, that works on iron with the same tools that the human carpenter employs on wood; the instrument that, on the London wharves, cuts the veneers, is a gigantic razor; the tool of the shearing machine, which shears iron as easily as a tailor’s scissors cut cloth, is

406:2/o Betrachten wir nun den Teil der zum Maschinenbau angewandten Maschinerie, der die eigentliche Werkzeugmaschine bildet, so erscheint das handwerksmäßige Instrument wieder, aber in zyklonischem Umfang. Der Operateur der Bohrmaschine z.B. ist ein ungeheurer Bohrer, der durch eine Dampfmaschine getrieben wird und ohne den umgekehrt die Zylinder großer Dampfmaschinen und hydraulischer Pressen nicht produziert werden könnten. Die mechanische Drechselbank ist die zyklonische Wiedergeburt der gewöhnlichen Fußdrechselbank, die Hobelmaschine ein eiserner Zimmermann, der mit denselben Werkzeugen in Eisen arbeitet, womit der Zimmermann in Holz; das Werkzeug, welches in den Londoner Schiffswerften das Furnierwerk schneidet, ist ein riesenartiges Rasierrmesser, das

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a monster pair of scissors; and the steam-hammer works with an ordinary hammer head, but of such a weight that not Thor himself could wield it.¹⁰⁶ These steam-hammers are an invention of Nasmyth, and there is one that weighs over 6 tons and strikes with a vertical fall of 7 feet, on an anvil weighing 36 tons. It is mere child's-play for it to crush a block of granite into powder, yet it is no less capable of driving, with a succession of light taps, a nail into a piece of soft wood.¹⁰⁷

¹⁰⁶ One of these machines, used for forging paddle-wheel shafts in London, is called "Thor." It forges a shaft of 16 1/2 tons with as much ease as a blacksmith forges a horseshoe.

¹⁰⁷ Wood-working machines that are also capable of being employed on a small scale are mostly American inventions.

Summary conclusion of the whole section which now stresses more the differences than the common features of hand tools and machinery. Co-operation *technical* necessity!

389:1 The implements of labor, in the form of machinery, necessitate the substitution of natural forces for human force, and the conscious application of science, instead of rule of thumb. In Manufacture, the organisation of the social labor-process is purely subjective; it is a combination of detail laborers; in its machinery system, Modern Industry has a productive organism that is purely objective, in which the laborer becomes a mere appendage to an already existing material condition of production. In simple co-operation, and even in that founded on division of labor, the suppression of the isolated, by the collective, workman still appears to be more or less accidental. Machinery, with a few exceptions to be mentioned later, operates only by means of associated labor, or labor in common. Hence the co-operative character of the labor-process is, in the latter case, a technical necessity dictated by the instrument of labor itself.

Werkzeug der Schermaschine, welche Eisen schneidet, wie die Schneiderschere Tuch, eine Monsterschere, und der Dampfhammer operiert mit einem gewöhnlichen Hammerkopf, aber von solchem Gewicht, daß Thor selbst ihn nicht schwingen könnte.¹⁰⁶ Einer dieser Dampfhammer z.B., die eine Erfindung von Nasmyth sind, wiegt über 6 Tonnen und stürzt mit einem perpendicularen Fall von 7 Fuß auf einen Amboß von 36 Tonnen Gewicht. Er pulverisiert spielend einen Granitblock und ist nicht minder fähig, einen Nagel in weiches Holz mit einer Aufeinanderfolge leiser Schläge einzutreiben.¹⁰⁷

¹⁰⁶ Eine dieser Maschinen in London zum Schmieden von paddle-wheel shafts führt den Namen „Thor“. Sie schmiedet einen Schaft von 16 1/2 Tonnen Gewicht mit derselben Leichtigkeit, wie der Schmied ein Hufeisen.

¹⁰⁷ Die in Holz arbeitenden Maschinen, die auch kleinem Maßstab angewandt werden können, sind meist amerikanische Erfindung.

407:1 Als Maschinerie erhält das Arbeitsmittel eine materielle Existenzweise, welche Ersetzung der Menschenkraft durch Naturkräfte und erfahrungsmäßiger Routine durch bewußte Anwendung der Naturwissenschaft bedingt. In der Manufaktur ist die Gliederung des gesellschaftlichen Arbeitsprozesses rein subjektiv, Kombination von Teilarbeitern; im Maschinensystem besitzt die große Industrie einen ganz objektiven Produktionsorganismus, den der Arbeiter als fertige materielle Produktionsbedingung vorfindet. In der einfachen und selbst in der durch Teilung der Arbeit spezifizierten Kooperation erscheint die Verdrängung des vereinzelt Arbeiters durch den vergesellschafteten immer noch mehr oder minder zufällig. Die Maschinerie, mit einigen später zu erwähnenden Ausnahmen, funktioniert nur in der Hand unmittelbar vergesellschafteter oder gemeinsamer Arbeit. Der kooperative Charakter des Arbeitsprozesses wird jetzt also durch die Natur des

Arbeitsmittels selbst diktierter technischer Notwendigkeit.

↑ In this section, Marx described the evolution of machinery as the exercise of the forces which he identified at the beginning as the driving forces for the development of machinery. The replacement of the worker was the starting point, and the development is only finished after also the production of machinery itself is mechanized.

15.2. The Value Transferred by the Machinery to the Product

Since machines have the purpose to replace the laborer in the production process, does this mean that machines also take over the role of the laborer in the valorization process, namely, incorporate new value in the product? The answer is

- the machine transfers its own value but does not create new value.
- total value decreases but the proportion of the value transferred by constant capital increases
- in capitalism, labor saving machinery is often not introduced because the capitalist does not have to pay all labor.

15.2.a. [Machines transfer value but do not create value]

Marx begins with a description how machines increase productivity: Whenever there is a real effect, there must be a real mechanism producing this effect. Marx's aim is to trace this mechanism.

389:2/o We saw that the productive powers resulting from co-operation and division of labor cost capital nothing. They are natural forces of social labor.

407:2/o Man sah, daß die aus Kooperation und Teilung der Arbeit entspringenden Produktivkräfte dem Kapital nichts kosten. Sie sind Naturkräfte der gesellschaftlichen Arbeit.

There are other natural forces which cost nothing either, namely the forces of physics, chemistry, biology.

So also physical forces, like steam, water, etc., when appropriated to productive processes, cost nothing. But just as a man requires lungs to breathe with, so he requires something that is work of man's hand, in order to consume physical forces productively. A water-wheel is necessary to exploit the force of water, and a steam-engine to exploit the elasticity of steam.

Naturkräfte, wie Dampf, Wasser usw., die zu produktiven Prozessen angeeignet werden, kosten ebenfalls nichts. Wie aber der Mensch eine Lunge zum Atmen braucht, braucht er ein „Gebild von Menschenhand“, um Naturkräfte produktiv zu konsumieren. Ein Wasserrad ist nötig, um die Bewegungskraft des Wassers, eine Dampfmaschine, um die Elastizität des Dampfes auszubeuten.

↓ Now Marx adds a third force to the collection. It is a social force, and its discovery costs labor. But once it is discovered, its application does not degrade it and use it up.

And the same thing that holds for the natural forces also holds for science. Once discovered, the law of the deviation of the mag-

Wie mit den Naturkräften verhält es sich mit der Wissenschaft. Einmal entdeckt, kostet das Gesetz über die Abweichung der

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netic needle in the field of an electric current, or the law of the magnetisation of iron, around which an electric current circulates, cost never a penny.¹⁰⁸ But the exploitation of these laws for the purposes of telegraphy, etc., necessitates a costly and extensive apparatus.

Magnetnadel im Wirkungskreise eines elektrischen Stroms oder über Erzeugung von Magnetismus im Eisen, um das ein elektrischer Strom kreist, keinen Deut.¹⁰⁸ Aber zur Ausbeutung dieser Gesetze für Telegraphie usw. bedarf es eines sehr kostspieligen und weitläufigen Apparats.

The sentence “and what is true for the natural forces is also true for science” is present (in German) in MEW 23, but it is not present in MEGA II/9, 337:1 (which is a

reproduction of the original English translation). MECW gives this sentence as an editorial footnote. The Vintage translation omits it altogether. But the

German counterpart of this sentence is present in the 2nd edition already (according to MEGA).

Question 998 *Test Submission for Private Grades*

Question 999 *Test Submission for Public Grades*

Question 1000 *How does machinery increase the productiveness of labor?*

Question 1001 *In 508:2/o, Marx distinguishes the productive forces of nature from those of science. Is this justified?*

↑ Nothing about non-renewable resources, especially energy. ↓ The footnote introduces an interesting concept of capitalist exploitation of science, parallel to the capitalist exploitation of labor.

¹⁰⁸ Science, generally speaking, costs the capitalist nothing, a fact that by no means hinders him from exploiting it. The science of others is as much annexed by capital as the labor of others.

¹⁰⁸ Die Wissenschaft kostet dem Kapitalisten überhaupt „nichts“, was ihn durchaus nicht hindert, sie zu exploitiern. Die „fremde“ Wissenschaft wird dem Kapital einverleibt wie fremde Arbeit.

↓ Now a joke about the stupidity of capitalists.

Capitalistic appropriation and personal appropriation, whether of science or of material wealth, are, however, totally different things. Dr. Ure himself deplores the gross ignorance of mechanical science existing among his dear machinery-exploiting manufacturers, and Liebig can tell us about the astounding ignorance of chemistry displayed by English chemical manufacturers.

„Kapitalistische“ Aneignung und „persönliche“ Aneignung, sei es von Wissenschaft, sei es von materiellem Reichtum, sind aber ganz und gar disparate Dinge. Dr. Ure selbst bejammerte die grobe Unbekanntheit seiner lieben, Maschinen exploitierenden Fabrikanten mit der Mechanik, und Liebig weiß von der haarsträubenden Unwissenheit der englischen chemischen Fabrikanten in der Chemie zu erzählen.

Moore-Aveling (according to MECW) has: “Liebig can a tale

unfold about the astounding ignorance of chemistry.” This

sentence does not make sense, we follow here the Fowkes translation.

Question 1002 *What is the difference between “capitalist” and “personal” appropriation of science?*

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Vessel. FIXME

All this does not have to do much with labor. Now Marx makes a connection with labor. Marx begins to explain how machines take advantage of natural forces and of science. Machinery is the vessel allowing the capitalist to capture the productive forces yielded without cost by co-operation, the natural forces, and science.

The machine, as we have seen, does not drive out the tool. Rather does the tool expand and multiply, changing from a dwarf implement of the human organism to the implement of a mechanism created by man. Capital now sets the laborer to work, not with a manual tool, but with a machine which itself handles the tools.

Durch die Maschine wird, wie wir sahen, das Werkzeug nicht verdrängt. Aus einem Zwergwerkzeug des menschlichen Organismus reckt es sich in Umfang und Anzahl zum Werkzeug eines vom Menschen geschaffnen Mechanismus. Statt mit dem Handwerkszeug, läßt das Kapital den Arbeiter jetzt mit einer Maschine arbeiten, die ihre Werkzeuge selbst führt.

↓ Although the productivity of the laborer using the machine is multiplied, it is not clear whether the total labor input declines, since machines themselves contain much more labor than hand tools.

Although, therefore, it is clear at the first glance that, by incorporating both stupendous physical forces, and the natural sciences, with the process of production, Modern Industry raises the productiveness of labor to an extraordinary degree, it is by no means equally clear, that this increased productive force is not, on the other hand, purchased by an increased expenditure of labor. Machinery, like every other component of constant capital, creates no new value, but yields up its own value to the product that it serves to beget. In so far as the machine has value, and, in consequence, parts with value to the product, it forms an element in the value of that product. Instead of being cheapened, the product is made dearer in proportion to the value of the machine. And it is clear as noon-day, that machines and systems of machinery, the characteristic instruments of labor of Modern Industry, are incomparably more loaded with value than the implements used in handicrafts and manufactures.

Wenn es daher auf den ersten Blick klar ist, daß die große Industrie durch Einverleibung ungeheurer Naturkräfte und der Naturwissenschaft in den Produktionsprozeß die Produktivität der Arbeit außerordentlich steigern muß, ist es keineswegs ebenso klar, daß diese gesteigerte Produktivkraft nicht durch vermehrte Arbeitsausgabe auf der andren Seite erkaufte wird. Gleich jedem andren Bestandteil des konstanten Kapitals schafft die Maschinerie keinen Wert, gibt aber ihren eignen Wert an das Produkt ab, zu dessen Erzeugung sie dient. Soweit die Wert hat und daher Wert auf das Produkt überträgt, bildet sie einen Wertbestandteil desselben. Statt es zu verwohlfeilern, verteuert sie es im Verhältnis zu ihrem eignen Wert. Und es ist handgreiflich, daß Maschine und systematisch entwickelte Maschinerie, das charakteristische Arbeitsmittel der großen Industrie, unverhältnismäßig an Wert schwillt, verglichen mit den Arbeitsmitteln des Handwerks- und Manufakturbetriebs.

↑ Although machinery allows to harness natural forces, there is no a priori reason why this use of machinery decreases the labor content of the product: direct labor diminishes only at the expense of increased past labor. ↓ In the next paragraph Marx brings four arguments why the overall expenditure of labor decreases.

(1) Although big machines must be present in the labor process, they enter the valorization process only piecemeal.

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390:1/o In the first place, it must be observed that the machinery, while always entering as a whole into the labor-process, enters into the value-begetting process only by bits. It never adds more value than it loses, on an average, by wear and tear. Hence there is a great difference between the value of a machine, and the value transferred in a given time by that machine to the product.

408:1/o Es ist nun zunächst zu bemerken, daß die Maschinerie stets ganz in den Arbeitsprozeß und immer nur teilweise in den Verwertungsprozeß eingeht. Sie setzt nie mehr Wert zu, als sie im Durchschnitt durch ihre Abnutzung verliert. Es findet also große Differenz statt zwischen dem Wert der Maschinen und dem periodisch von ihr auf das Produkt übertragenen Wertteil. Es findet eine große Differenz statt zwischen der Maschine als wertbildendem und als produktbildendem Element.

↓ (2) This difference rises with the useful length of life of the machine (and machines live longer).

The longer the life of the machine in the labor-process, the greater is that difference.

Je größer die Periode, während welcher dieselbe Maschinerie wiederholt in demselben Arbeitsprozeß dient, desto größer jene Differenz.

↓ (3) This difference also rises because machines use scientific principles.

It is true, no doubt, as we have already seen, that every instrument of labor enters as a whole into the labor-process, and only piece-meal, proportionally to its average daily loss by wear and tear, into the value-begetting process. But this difference between the instrument as a whole and its daily wear and tear is much greater in a machine than in a tool, because the machine, being made from more durable material, has a longer life; because its employment, being regulated by strictly scientific laws, allows of greater economy in the wear and tear of its parts, and in the materials it consumes; and lastly, because its field of production is incomparably larger than that of a tool.

Allerdings haben wir gesehen, daß jedes eigentliche Arbeitsmittel oder Produktionsinstrument immer ganz in den Arbeitsprozeß und stets nur stückweis, im Verhältnis zu seinem täglichen Durchschnittverschleiß, in den Verwertungsprozeß eingeht. Diese Differenz jedoch zwischen Benutzung und Abnutzung ist viel größer bei der Maschinerie als bei dem Werkzeug, weil sie, aus dauerhafterem Material gebaut, länger lebt, weil ihre Anwendung, durch streng wissenschaftliche Gesetze geregelt, größere Ökonomie in der Verausgabung ihrer Bestandteile und ihrer Konsumtionsmittel ermöglicht, und endlich, weil ihr Produktionsfeld unverhältnismäßig größer ist als das des Werkzeugs.

↑ (4) The end of the last sentence had a fourth reason: machines produce many more products.

↓ Marx sums this up as follows: machines are a productive power that costs nothing, namely, humankind has learned to make its own past labor as effective for their purposes as natural forces.

After making allowance, both in the case of the machine and of the tool, for their average daily cost, that is for the value they transmit to the product by their average daily wear and tear, and for their consumption of auxiliary substance, such as oil, coal, and so

Ziehn wir von beiden, von Maschinerie und Werkzeug, ihre täglichen Durchschnittskosten ab oder den Wertbestandteil, den sie durch täglichen Durchschnittverschleiß und den Konsum von Hilfsstoffen, wie Öl, Kohlen usw., dem Produkt zusetzen, so

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on, they each do their work gratuitously, just like the forces furnished by Nature without the help of man. The greater the productive power of the machinery compared with that of the tool, the greater is the extent of its gratuitous service compared with that of the tool.

↓ Important Historical Perspective:

In Modern Industry man succeeded for the first time in making the product of his past labor work on a large scale gratuitously, like the forces of Nature.¹⁰⁹

wirken sie umsonst, ganz wie ohne Zutun menschlicher Arbeit vorhandne Naturkräfte. Um soviel größer der produktive Wirkungsumfang der Maschinerie als der des Werkzeugs, um soviel größer ist der Umfang ihres unentgeltlichen Dienstes, verglichen mit dem des Werkzeugs.

Erst in der großen Industrie lernt der Mensch, das Produkt seiner vergangen, bereits gegenständlichen Arbeit auf großem Maßstab gleich einer Naturkraft umsonst wirken zu lassen.¹⁰⁹

↓ Footnote: Ricardo says this too, even overstates it:

¹⁰⁹ Ricardo lays such stress on this effect of machinery (of which, in other connexions, he takes no more notice than he does of the general distinction between the labor process and the process of creating surplus-value), that he occasionally loses sight of the value given up by machines to the product, and puts machines on the same footing as natural forces. Thus “Adam Smith nowhere undervalues the services which the natural agents and machinery perform for us, but he very justly distinguishes the nature of the value which they add to commodities . . . as they perform their work gratuitously, the assistance which they afford us, adds nothing to value in exchange.” (Ric., l.c., pp. 336, 337.) This observation of Ricardo is of course correct in so far as it is directed against J. B. Say, who imagines that machines render the “service” of creating value which forms a part of “profits.”

¹⁰⁹ Ricardo faßt diese, übrigens von ihm ebensowenig wie der allgemeine Unterschied zwischen Arbeitsprozeß und Verwertungsprozeß entwickelte Wirkung der Maschinen manchmal so vorzugsweise ins Auge, daß er gelegentlich den Wertbestandteil vergißt, den Maschinen an das Produkt abgeben, und sie ganz und gar mit den Naturkräften zusammenwirft. So z.B. „Adam Smith unterschätzt nirgends die Dienste, die Naturkräfte und Maschinerie uns leisten, aber er unterscheidet sehr richtig die Natur des Wertes, den sie den Waren zusetzen . . . da sie ihre Arbeit kostenlos tun, setzt ihr uns geleisteter Beistand dem Tauschwert nichts zu“. (Ricardo, l.c. p. 336, 337.) Ricardos Bemerkung ist natürlich richtig gegen J.B. Say, der sich vorfaselt, die Maschinen leisteten den „Dienst“, Wert zu schaffen, der Teil des „Profits“ bilde.

↓ After this economy in the transfer of value by each individual machine, Marx discusses now the economy of the machine *system*. Here we find again the economy of constant capital, which we know from the co-operation chapter. These savings are multiplied because the jointly used conditions of the labor-process include the motor and transmission mechanisms.

391:1 In treating of Co-operation and Manufacture, it was shown that certain general factors of production, such as buildings, are, in comparison with the scattered means of production of the isolated workman, economised by being consumed in common, and that they therefore make the product cheaper. In a system of machinery, not only is the framework of the machine consumed in common by its numerous operating implements, but the prime mover, together with a part of the transmitting mech-

409:1 Es ergab sich bei Betrachtung der Kooperation und Manufaktur, daß gewisse allgemeine Produktionsbedingungen, wie Baulichkeiten usw., im Vergleich mit den zersplitterten Produktionsbedingungen einzelner Arbeiter durch den gemeinsamen Konsum ökonomisiert werden, daher das Produkt weniger verteuern. Bei der Maschinerie wird nicht nur der Körper einer Arbeitsmaschine von ihren vielen Werkzeugen, sondern dieselbe Bewegungsmaschine nebst einem Teil des Transmissionsme-

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anism, is consumed in common by the numerous operative machines.

chanismus von vielen Arbeitsmaschinen gemeinsam verbraucht.

Question 1003 *Why does machinery cheapen the product even though machines are much more expensive than manual tools? How do you measure the labor saved by machines?*

↓ Marx introduces speed here, which in the non-mechanized modes of production was not a parameter that could be controlled:

392:1–3 Given the difference between the value of the machinery, and the value transferred by it in a day to the product, the extent to which this latter value makes the product dearer, depends in the first instance, upon the size of the product; so to say, upon its area. Mr. Baynes, of Blackburn, in a lecture published in 1858, estimates that

“each real mechanical horse-power^{109a} will drive 450 self-acting mule spindles, with preparation, or 200 throstle spindles, or 15 looms for 40 inch cloth with the appliances for warping, sizing, etc.”

In the first case, it is the day's produce of 450 mule spindles, in the second, of 200 throstle spindles, in the third, of 15 power-looms, over which the daily cost of one horse-power, and the wear and tear of the machinery set in motion by that power, are spread; so that only a very minute value is transferred by such wear and tear to a pound of yarn or a yard of cloth. The same is the case with the steam-hammer mentioned above. Since its daily wear and tear, its coal-consumption, etc., are spread over the stupendous masses of iron hammered by it in a day, only a small value is added to a hundred weight of iron; but that value would be very great, if the cyclopean instrument were employed in driving in nails.

Now a footnote by Engels about the changing definition of horse-power:

^{109a} A horse-power is equal to a force of 33,000 foot-pounds per minute, i.e., to a force that raises 33,000 pounds one foot in a minute, or one pound 33,000 feet. This is the horse power meant in the text. In ordinary language, and also here and there in quotations in this work, a distinction is drawn between the “nominal” and the “commercial” or “indicated” horse-power of

409:2–410:2 Gegeben die Differenz zwischen dem Wert der Maschinerie und dem auf ihr Tagesprodukt übertragenen Wertteil, hängt der Grad, worin dieser Wertteil das Produkt verteuert, zunächst vom Umfang des Produkts ab, gleichsam von seiner Oberfläche. Herr Baynes aus Blackburn schätzt in einer 1857 veröffentlichten Vorlesung, daß

„jede reale^{109a} mechanische Pferdekraft 450 selfacting Mulespindeln nebst Vorgeschirr treibt oder 200 Throstlespindeln oder 15 Webstühle für 40 inch cloth nebst den Vorrichtungen zum Aufziehen der Kette, Schlichten usw.“

Es ist im ersten Fall das Tagesprodukt von 450 Mulespindeln, im zweiten von 200 Throstlespindeln, im dritten von 15 mechanischen Webstühlen, worüber sich die täglichen Kosten einer Dampfpferdekraft und der Verschleiß der von ihr in Bewegung gesetzten Maschinerie verteilen, so daß hierdurch auf eine Unze Garn oder eine Elle Geweb nur ein winziger Wertteil übertragen wird. Ebenso im obigen Beispiel mit dem Dampfhammer. Da sich sein täglicher Verschleiß, Kohlenkonsum usw. verteilen auf die furchtbaren Eisenmassen, die er täglich hämmert, hängt sich jedem Zentner Eisen nur ein geringer Wertteil an, der sehr groß wäre, sollte das zyklische Instrument kleine Nägel eintreiben.

^{109a} {Note zur 3. Aufl.—Eine „Pferdekraft“ ist gleich der Kraft von 33 000 Fußpfund in der Minute, d.h. der Kraft, die 33 000 Pfund in der Minute um 1 Fuß (englisch) hebt oder 1 Pfund um 33 000 Fuß. Dies ist die oben gemeinte Pferdekraft. In der gewöhnlichen Geschäftssprache und auch hie und da in Zitaten dieses Buchs wird aber unterschieden zwischen „nominellen“

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the same engine. The old or nominal horse-power is calculated exclusively from the length of piston-stroke, and the diameter of the cylinder, and leaves pressure of steam and piston speed out of consideration. It expresses practically this: This engine would be one of 50 horse-power, if it were driven with the same low pressure of steam, and the same slow piston speed, as in the days of Boulton and Watt. But the two latter factors have increased enormously since those days. In order to measure the mechanical force exerted today by an engine, an indicator has been invented which shows the pressure of the steam in the cylinder. The piston speed is easily ascertained. Thus the "indicated" or "commercial" horse-power of an engine is expressed by a mathematical formula, involving diameter of cylinder, length of stroke, piston speed, and steam pressure, simultaneously, and showing what multiple of 33,000 pounds is really raised by the engine in a minute. Hence, one "nominal" horse-power may exert three, four, or even five "indicated" or "real" horse-powers. This observation is made for the purpose of explaining various citations in the subsequent pages.—F. E.

und „kommerziellen“ oder „indizierten“ Pferdekraften derselben Maschine. Die alte oder nominelle Pferdekraft wird berechnet ausschließlich aus Kolbenhub und Zylinderdurchmesser und läßt Dampfdruck und Kolbengeschwindigkeit ganz außer Berücksichtigung. D.h., faktisch sagt sie aus: Diese Dampfmaschine hat z.B. 50 Pferdekraft, wenn sie mit demselben schwachen Dampfdruck und derselben geringen Kolbengeschwindigkeit getrieben wird wie zur Zeit von Boulton und Watt. Letztere beiden Faktoren sind aber seitdem enorm gewachsen. Um die von einer Maschine heute wirklich gelieferte mechanische Kraft zu messen, wurde der Indikator erfunden, der den Dampfdruck anzeigt. Die Kolbengeschwindigkeit läßt sich leicht feststellen. So ist das Maß der „indizierten“ oder „kommerziellen“ Pferdekraft einer Maschine eine mathematische Formel, welche Zylinderdurchmesser, Höhe des Kolbenhubs, Kolbengeschwindigkeit und Dampfdruck gleichzeitig berücksichtigt und damit anzeigt, wievielfach die Maschine in der Minute 33000 Fußpfund wirklich leistet. Eine nominelle Pferdekraft kann daher in Wirklichkeit drei, vier, selbst fünf indizierte oder wirkliche Pferdekraften leisten. Dies zur Erklärung verschiedener späterer Zitate.—F.E.}

↓ The scale of production is size times speed, and speed has been increasing greatly:

392:4/o Given a machine's capacity for work, that is, the number of its operating tools, or, where it is a question of force, their mass, the amount of its product will depend on the velocity of its working parts, on the speed, for instance, of the spindles, or on the number of blows given by the hammer in a minute. Many of these colossal hammers strike seventy times in a minute, and Ryder's patent machine for forging spindles with small hammers gives as many as 700 strokes per minute.

410:3/o Den Wirkungskreis der Arbeitsmaschine, also die Anzahl ihrer Werkzeuge, oder, wo es sich um Kraft handelt, deren Umfang gegeben, wird die Produktenmasse von der Geschwindigkeit abhängen, womit sie operiert, also z.B. von der Geschwindigkeit, womit sich die Spindel dreht, oder der Anzahl Schläge, die der Hammer in einer Minute austeilt. Manche jener kolossalen Hämmer geben 70 Schläge, Ryders Schmiedepatentmaschine, die Dampfhammer in kleineren Dimensionen zum Schmieden von Spindeln anwendet, 700 Schläge in einer Minute.

Another systemic factor is the value of the machine itself, which is diminished in the production of machines by machines.

393:1 Given the rate at which machinery transfers its value to the product, the amount of value so transferred depends on the total value of the machinery.¹¹⁰ The less labor it contains, the less value it imparts to the product. The less value it gives up, so

411:1 Die Proportion gegeben, worin die Maschinerie Wert auf das Produkt überträgt, hängt die Größe dieses Wertteils von ihrer eignen Wertgröße ab.¹¹⁰ Je weniger Arbeit sie selbst enthält, desto weniger Wert setzt sie dem Produkt zu. Je weniger Wert ab-

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much the more productive it is, and so much the more its services approximate to those of natural forces.

↑ That was an interesting remark about natural forces. Again the quantitative limits of energy are not an issue for Marx.

But the production of machinery by machinery lessens its value relatively to its extension and efficacy.

gebend, desto produktiver ist sie und desto mehr nähert sich ihr Dienst dem der Naturkräfte.

Die Produktion der Maschinerie durch Maschinerie verringert aber ihren Wert, verhältnismäßig zu ihrer Ausdehnung und Wirkung.

Side remark that machines do not transfer interest costs to the product:

¹¹⁰ The reader who is imbued with capitalist notions will naturally miss here the “interest” that the machine, in proportion to its capital value, adds to the product. It is, however, easily seen that since a machine no more creates new value than any other part of constant capital, it cannot add any value under the name of “interest.” It is also evident that here, where we are treating of the production of surplus-value, we cannot assume *a priori* the existence of any part of that value under the name of interest. The capitalist mode of calculating, which appears, *prima facie*, absurd and repugnant to the laws of the creation of value, will be explained in the third book of this work.

¹¹⁰ Der in kapitalistischen Vorstellungen befangene Leser vermißt hier natürlich den „Zins“, den die Maschine, pro rata ihres Kapitalwerts, dem Produkt zusetzt. Es ist jedoch leicht einzusehen, daß die Maschine, da sie so wenig als irgendein anderer Bestandteil des konstanten Kapitals Neuwert erzeugt, keinen solchen unter dem Namen „Zins“ zusetzen kann. Es ist ferner klar, daß hier, wo es sich um die Produktion des Mehrwerts handelt, kein Teil desselben unter dem Namen „Zins“ *a priori* vorausgesetzt werden kann. Die kapitalistische Rechnungsweise, die *prima facie* abgeschmackt und den Gesetzen der Wertbildung widersprechend scheint, findet im Dritten Buch dieser Schrift ihre Erklärung.

↑ This was a fleeting reference to the prices of production. ↓ Finally Marx also looks at the empirical evidence, and this leads him to formulate a new law:

15.2.b. [Value Part Transferred from Means of Labor Falls Absolutely but Increases Relatively]

393:2 An analysis and comparison of the prices of commodities produced by handicrafts or manufactures, and of the prices of the same commodities produced by machinery, shows generally, that, in the product of machinery, the value due to the instruments of labor increases relatively, but decreases absolutely. In other words, its absolute amount decreases, but its amount, relatively to the total value of the product, of a pound of yarn, for instance, increases.¹¹¹

411:2 Eine vergleichende Analyse der Preise handwerks- oder manufakturmäßig produzierter Waren und der Preise derselben Waren als Maschinenprodukt ergibt im allgemeinen das Resultat, daß beim Maschinenprodukt der dem Arbeitsmittel geschuldete Wertbestandteil relativ wächst, aber absolut abnimmt. Das heißt, seine absolute Größe nimmt ab, aber seine Größe im Verhältnis zum Gesamtwert des Produkts, z.B. eines Pfundes Garns, nimmt zu.¹¹¹

↑ Marx will refer to these same empirical findings also in chapter Twenty-Five, 617:4/o.

This theorem here looks like a general principle governing technical progress: labor can be shortened only by transferring relatively more to the means of labor.

↓ Footnote 111 gives a counterexample where the value part falls even relatively:

¹¹¹ This portion of value which is added by the machinery, decreases both absolutely and relatively, when the machinery does away with

¹¹¹ Dieser von der Maschine zugesetzte Wertbestandteil fällt absolut und relativ, wo sie Pferde verdrängt, überhaupt Arbeitstiere, die nur als Be-

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horses and other animals that are employed as mere moving forces, and not as machines for changing the form of matter. It may here be incidentally observed, that Descartes, in defining animals as mere machines, saw with eyes of the manufacturing period, while to eyes of the middle ages, animals were assistants to man, as they were later to Von Haller in his “Restauration der Staatswissenschaften.” That Descartes, like Bacon, anticipated an alteration in the form of production, and the practical subjugation of Nature by Man, as a result of the altered methods of thought, is plain from his “Discours de la Méthode.” He there says: “If est possible (by the methods he introduced in philosophy) de parvenir i des connaissances fort utiles i la vie, et qu’au lieu de cette philosophic speculative qu’on enseigne dans les écoles, on en peut trouver une pratique, par laquelle, connaissant la force et les actions du feu, de l’eau, de l’air, des astres, et de tons les autres corps qui nous environnent, aussi distinctement que nous connaissons les divers métiers de nos artisans, nous les pourrions employer en même façon à tous les usages auxquels ils sont propres, et ainsi nous rendre comme maîtres et possesseurs de la nature” and thus “contribuer au perfectionnement de la vie humaine.” In the preface to Sir Dudley North’s “Discourses upon Trade” (1691) it is stated, that Descartes’ method had begun to free Political Economy from the old fables and superstitious notions of gold, trade, etc. On the whole, however, the early English economists sided with Bacon and Hobbes as their philosophers; while, at a later period, the philosopher κατ’ ἐξοχήν of Political Economy in England, France, and Italy, was Locke.

wegungskraft, nicht als Stoffwechselmaschinen benutzt werden. Nebenbei bemerkt, Descartes mit seiner Definition der Tiere als bloßer Maschinen sieht mit den Augen der Manufakturperiode im Unterschied zum Mittelalter, dem das Tier als Gehilfe des Menschen galt, wie später wieder dem Herrn v. Haller in seiner „Restauration der Staatswissenschaften“. Daß Descartes ebenso wie Bacon eine veränderte Gestalt der Produktion und praktische Beherrschung der Natur durch den Menschen als Resultat der veränderten Denkmethode betrachtete, zeigt sein „Discours de la Méthode“, wo es u.a. heißt: „Es ist möglich“ (durch die von ihm in die Philosophie eingeführte Methode), „zu Kenntnissen zu gelangen, die für das Leben sehr nützlich sind, und an Stelle jener spekulativen Philosophie, die man in den Schulen lehrt, eine praktische Philosophie zu finden, durch die wir die Kräfte und die Wirksamkeit des Feuers, des Wassers, der Luft, der Gestirne und aller anderen uns umgebenden Körper—indem wir sie ebenso genau kennen wie die verschiedenen Gewerbe unserer Handwerker—auch ebenso zu all den Gebrauchszwecken verwenden könnten für die sie geeignet sind, und uns so zu Meistern und Besitzern der Natur machen können“, und so „zur Vervollkommenung des menschlichen Lebens beitragen.“ In der Vorrede zu Sir Dudley Norths, „Discourses upon Trade“ (1691) heißt es, die Methode des Descartes, auf die politische Ökonomie angewandt, habe sie von alten Märchen und abergläubischen Vorstellungen über Geld, Handel usw. zu befreien angefangen. Im Durchschnitt schließen sich jedoch die englischen Ökonomen der frühern Zeit an Bacon und Hobbes als ihre Philosophen an, während Locke später „der Philosoph“ κατ’ ἐξοχήν der politischen Ökonomie für England, Frankreich und Italien ward.

↑ Marx should have said something critical here about this mechanistic world view.

Question 1004 Which view is more correct: the medieval point of view to see animals as companions of humans, or the enlightenment view to see animals as machines?

↓ After taking a negative approach, which shows how little value the machine transfers to the product, Marx takes now a positive approach how to compute the productivity of machines in terms of value: by comparing the labor replaced by the machine with the labor necessary to produce the machine itself.

394:1/o It is evident that whenever it costs as much labor to produce a machine as is saved by the employment of that machine, there is nothing but a transposition of labor;

412:1/o Es ist klar, daß bloßes Deplacement der Arbeit stattfindet, also die Gesamtsumme der zur Produktion einer Ware erforderlichen Arbeit nicht vermindert oder

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consequently the total labor required to produce a commodity is not lessened or the productiveness of labor is not increased. It is clear, however, that the difference between the labor a machine costs, and the labor it saves, in other words, that the degree of its productiveness does not depend on the difference between its own value and the value of the implement it replaces. As long as the labor spent on a machine, and consequently the portion of its value added to the product, remains smaller than the value added by the workman to the product with his tool, there is always a difference of labor saved in favour of the machine. The productiveness of a machine is therefore measured by the human labor-power it replaces.

↑ The use of the machines increases productivity if the labor which it costs is less than the labor it replaces. ↓ Now Marx brings four examples, three of which are documented in the literature. (1) Spinning:

According to Mr. Baynes, 2 operatives are required for the 450 mule spindles, inclusive of preparation machinery,¹¹² that are driven by one-horse power; each self-acting mule spindle, working ten hours, produces 13 ounces of yarn (average number of thickness); consequently 2 1/2 operatives spin weekly 365 5/8 lbs. of yarn. Hence, leaving waste on one side, 366 lbs. of cotton absorb, during their conversion into yarn, only 150 hours' labor, or fifteen days' labor of ten hours each. But with a spinning-wheel, supposing the hand-spinner to produce thirteen ounces of yarn in sixty hours, the same weight of cotton would absorb 2,700 days' labor of ten hours each, or 27,000 hours' labor.¹¹³

¹¹² According to the annual report (Oct 1863) of the Essen Chamber of Commerce, there was produced in 1862, at the cast-steel works of Krupp, with its 161 furnaces, thirty-two steam-engines (in the year 1800 this was about the number of all the steam-engines working in Manchester), and fourteen steam-hammers (representing in all 1,236 horse-power) forty-nine forges, 203 tool-machines, and about 2,400 workmen—thirteen million pounds of cast steel. Here there

die Produktivkraft der Arbeit nicht vermehrt wird, wenn die Produktion einer Maschine so viel Arbeit kostet, als ihre Anwendung erspart. Die Differenz jedoch zwischen der Arbeit, die sie kostet, und der Arbeit, die sie erspart, oder der Grad ihrer Produktivität hängt offenbar nicht ab von der Differenz zwischen ihrem eignen Wert und dem Wert des von ihr ersetzten Werkzeugs. Die Differenz dauert so lange, als die Arbeitskosten der Maschine und daher der von ihr dem Produkt zugesetzte Wertteil kleiner bleiben als der Wert, den der Arbeiter mit seinem Werkzeug dem Arbeitsgegenstand zusetzen würde. Die Produktivität der Maschinen mißt sich daher an dem Grad, worin sie menschliche Arbeitskraft ersetzt.

Nach Herrn Baynes kommen auf 450 Mulespindeln nebst Vormaschinerie, die von einer Dampfpferdekraft getrieben werden, 2 1/2 Arbeiter¹¹² und werden mit jeder self-acting mule spindle bei zehnstündigem Arbeitstag 13 Unzen Garn (Durchschnittszahl), also wöchentlich 365 5/8 Pfund Garn von 2 1/2 Arbeitern gesponnen. Bei ihrer Verwandlung in Garn absorbieren ungefähr 366 Pfund Baumwolle (wir sehen der Vereinfachung halber vom Abfall ab) also nur 150 Arbeitsstunden oder 15 zehnstündige Arbeitstage, während mit dem Spinnrad, wenn der Handspinner 13 Unzen Garn in 60 Stunden liefert, dasselbe Quantum Baumwolle 2700 Arbeitstage von 10 Stunden oder 27 000 Arbeitsstunden absorbieren würde.¹¹³

¹¹² Nach einem Jahresbericht der Handelskammer zu Essen (Okt. 1863) produzierte 1862 die Kruppsche Gußstahlfabrik mittelst 161 Schmelz-, Glüh- und Zementöfen, 32 Dampfmaschinen (im Jahr 1800 war das ungefähr die Gesamtzahl der in Manchester angewandten Dampfmaschinen) und 14 Dampfhämmer, welche zusammen 1236 Pferdekraft repräsentieren, 49 Schmiedessen, 203 Werkzeugmaschinen und zirka 2400 Arbeiter—13 Millionen Pfund Gußstahl. Hier

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are not two workmen to each horse-power.

¹¹³ Babbage estimates that in Java the spinning labor alone adds 117% to the value of the cotton. At the same period (1832) the total value added to the cotton by machinery and labor in the fine-spinning industry, amounted to about 33% of the value of the cotton. (“On the Economy of Machinery,” pp. 165, 166.)

↑ Modern data about numbers and horse powers of steam engines in [Wri10, p. 46:1], his source is [Mus76]. ↓ (2) Calico printing:

Where blockprinting, the old method of printing calico by hand, has been superseded by machine printing, a single machine prints, with the aid of one man or boy, as much calico of four colors in one hour, as it formerly took 200 men to do.¹¹⁴

¹¹⁴ Machine printing also economises colour.

↓ (3) Separating the cotton from the seeds (carding):

Before Eli Whitney invented the cotton gin in 1793, the separation of the seed from a pound of cotton cost an average day’s labor. By means of his invention one negress was enabled to clean 100 lbs. daily; and since then, the efficacy of the gin has been considerably increased. A pound of cotton wool, previously costing 50 cents to produce, included after that invention more unpaid labor, and was consequently sold with greater profit, at 10 cents. In India they employ for separating the wool from the seed, an instrument, half machine, half tool, called a churka; with this one man and a woman can clean 28 lbs. daily. With the churka invented some years ago by Dr. Forbes, one man and a boy produce 250 lbs. daily. If oxen, steam, or water, be used for driving it, only a few boys and girls as feeders are required. Sixteen of these machines driven by oxen do as much work in a day as formerly 750 people did on an average.¹¹⁵

¹¹⁵ See Paper read by Dr. Watson, Reporter on Products to the Government of India, before the Society of Arts, 17th April, 1860.

noch nicht 2 Arbeiter auf 1 Pferdekraft.

¹¹³ Babbage berechnet, daß in Java 117% dem Baumwollwert fast nur durch die Spinnarbeit zugesetzt werden. Zur selben Zeit (1832) betrug in England der Gesamtwert, den Maschinerie und Arbeit der Baumwolle bei der Feinspinnerei zusetzten, ungefähr 33% auf den Wert des Rohmaterials. „On the Economy of Machinery“, p. 165, 166.)

Wo die alte Methode des blockprinting oder der Handkattundruckerei durch Maschinendruck verdrängt ist, druckt eine einzige Maschine mit dem Beistand eines Mannes oder Jungen so viel vierfarbigen Kattun in einer Stunde wie früher 200 Männer.¹¹⁴

¹¹⁴ Beim Maschinendruck außerdem Farbe erspart.

Bevor Eli Whitney 1793 den cottongin erfand, kostete die Trennung eines Pfundes Baumwolle vom Samen einen Durchschnittsarbeitsstag. Infolge seiner Erfindung konnten täglich 100 Pfd. Baumwolle von einer Negerin gewonnen werden und die Wirksamkeit des gin ward seitdem noch bedeutend erhöht. Ein Pfund Baumwollfaser, früher zu 50 Cents produziert, wird später mit größerem Profit, d.h. mit Einschluß von mehr unbezahlter Arbeit, zu 10 Cents verkauft. In Indien wendet man zur Trennung der Faser vom Samen ein halbmaschinenartiges Instrument an, die Churka, womit ein Mann und eine Frau täglich 28 Pfd. reinigen. Mit der von Dr. Forbes vor einigen Jahren erfundenen Churka produzieren 1 Mann und 1 Junge täglich 250 Pf.; wo Ochsen, Dampf oder Wasser als Triebkräfte gebraucht werden, sind nur wenige Jungen und Mädchen als feeders (Handlanger des Materials für die Maschine) erheischt. Sechzehn dieser Maschinen, mit Ochsen getrieben, verrichten täglich das frühere Durchschnittstagewerk von 750 Leuten.¹¹⁵

¹¹⁵ Vgl. „Paper read by Dr. Watson, Reporter on Products to the Government of India, before the Society of Arts“, 17. April 1860.

15.2.c. [Capitalism Inhibits Labor-Saving Innovation]

↓ (4) Steam-plough. Marx revisits the data given earlier in footnote 96 to paragraph 379:2–381:0. Using this example he makes a new point: the amount of labor replaced by the machine is much larger than the cost savings realized by the capitalist, since not all labor is paid labor.

395:1/o As already stated, a steam-plough does as much work in one hour at a cost of three-pence, as 66 men at a cost of 15 shillings. I return to this example in order to clear up an erroneous notion. The 15 shillings are by no means the expression in money of all the labor expended in one hour by the 66 men. If the ratio of surplus-labor to necessary labor were 100%, these 66 men would produce in one hour a value of 30 shillings, although their wages, 15 shillings, represent only their labor for half an hour. Suppose, then, a machine cost as much as the wages for a year of the 150 men it displaces, say £3,000; this £3,000 is by no means the expression in money of the labor added to the object produced by these 150 men before the introduction of the machine, but only of that portion of their year's labor which was expended for themselves and represented by their wages. On the other hand, the £3,000, the money-value of the machine, expresses all the labor expended on its production, no matter in what proportion this labor constitutes wages for the workman, and surplus-value for the capitalist. Therefore, though a machine cost as much as the labor-power displaced by it costs, yet the labor materialised in it is even then much less than the living labor it replaces.¹¹⁶

¹¹⁶ "These mute agents (machines) are always the produce of much less labor than that which they displace, even when they are of the same money-value." (Ricardo, *l.c.*, p. 40.)

413:1/o Wie bereits erwähnt, verrichtet die Dampfmaschine, beim Dampfpflug, in einer Stunde zu 3 d. oder 1/4 sh. so viel Werk wie 66 Menschen zu 15 sh. per Stunde. Ich komme auf dieses Beispiel zurück gegen eine falsche Vorstellung. Die 15 sh. sind nämlich keineswegs der Ausdruck der während einer Stunde von den 66 Menschen zugefügten Arbeit. War das Verhältnis von Mehrarbeit zu notwendiger Arbeit 100%, so produzierten diese 66 Arbeiter per Stunde einen Wert von 30 sh., obgleich sich nur 33 Stunden in einem Äquivalent für sie selbst, d.h. im Arbeitslohn von 15 sh. darstellen. Gesetzt also, eine Maschine koste ebensoviel als der Jahreslohn von 150 durch sie verdrängten Arbeitern, sage 3000 Pfd.St., so sind 3000 Pfd.St. keineswegs der Geldausdruck der von 150 Arbeitern gelieferten und dem Arbeitsgegenstand zugesetzten Arbeit, sondern nur des Teils ihrer Jahresarbeit, der sich für sie selbst in Arbeitslohn darstellt. Dagegen drückt der Geldwert der Maschine von 3000 Pfd.St. alle während ihrer Produktion verausgabte Arbeit aus, in welchem Verhältnis immer diese Arbeit Arbeitslohn für den Arbeiter und Mehrwert für den Kapitalisten bilde. Kostet die Maschine also ebensoviel als die von ihr ersetzte Arbeitskraft, so ist die in ihr selbst vergegenständlichte Arbeit stets viel kleiner als die von ihr ersetzte lebendige Arbeit.¹¹⁶

¹¹⁶ „Diese stummen Agenten“ (die Maschinen) „sind immer das Produkt von viel weniger Arbeit als jene, die sie verdrängen, selbst dann, wenn sie gleichen Geldwert haben.“ (Ricardo, *l.c.* p. 40.)

↑ 150 men, annual wage £ 20, one man year = £ 40. 150 man years is £3000v + £3000s = £6000.

The point made under example (4) is not only a method of calculation, but this prohibits the application of labor-saving machines and leads to shameless waste of labor:

396:1/o The use of machinery for the ex-

414:1/oo Ausschließlich als Mittel zur

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clusive purpose of cheapening the product, is limited in this way, that less labor must be expended in producing the machinery than is displaced by the employment of that machinery. For the capitalist, however, this use is still more limited. Instead of paying for the labor, he only pays the value of the labor-power employed; therefore, the limit to his using a machine is fixed by the difference between the value of the machine and the value of the labor-power replaced by it.

Verwohlfeilerung des Produkts betrachtet, ist die Grenze für den Gebrauch der Maschinerie darin gegeben, daß ihre eigne Produktion weniger Arbeit kostet, als ihre Anwendung Arbeit ersetzt. Für das Kapital jedoch drückt sich diese Grenze enger aus. Da es nicht die angewandte Arbeit zahlt, sondern den Wert der angewandten Arbeitskraft, wird ihm der Maschinengebrauch begrenzt durch die Differenz zwischen dem Maschinenwert und dem Wert der von ihr ersetzten Arbeitskraft.

Since the low-wage limit to the introduction of labor-saving machines is social, not technological, it can be different in different countries. Counteracts the negative implications of the law of one price.

Question 1005 *How does capitalism restrict the use of labor-saving machines?*

Since the division of the day's work into necessary and surplus-labor differs in different countries, and even in the same country at different periods, or in different branches of industry; and further, since the actual wage of the laborer at one time sinks below the value of his labor-power, at another rises above it, it is possible for the difference between the price of the machinery and the price of the labor-power replaced by that machinery to vary very much, although the difference between the quantity of labor requisite to produce the machine and the total quantity replaced by it, remain constant.^{116a} But it is the former difference alone that determines the cost, to the capitalist, of producing a commodity, and, through the pressure of competition, influences his action. Hence the invention now-a-days of machines in England that are employed only in North America; just as in the sixteenth and seventeenth centuries, machines were invented in Germany to be used only in Holland, and just as many a French invention of the eighteenth century was exploited in England alone. In the older countries, machinery, when employed in some branches of industry, creates such a redundancy of labor in other branches that in these latter the fall of wages below the value of labor-power

Da die Teilung des Arbeitstags in notwendige Arbeit und Mehrarbeit in verschiedenen Ländern verschieden ist, ebenso in demselben Lande zu verschiedenen Perioden oder während derselben Periode in verschiedenen Geschäftszweigen; da ferner der wirkliche Lohn des Arbeiters bald unter den Wert seiner Arbeitskraft sinkt, bald über ihn steigt, kann die Differenz zwischen dem Preise der Maschinerie und dem Preise der von ihr zu ersetzenden Arbeitskraft sehr variieren, wenn auch die Differenz zwischen dem zur Produktion der Maschine nötigen Arbeitsquantum und dem Gesamtquantum der von ihr ersetzten Arbeit dieselbe bleibt.^{116a} Es ist aber nur die erstere Differenz, welche die Produktionskosten der Ware für den Kapitalisten selbst bestimmt und ihn durch die Zwangsgesetze der Konkurrenz beeinflußt. Es werden daher heute Maschinen in England erfunden, die nur in Nordamerika angewandt werden, wie Deutschland im 16. und 17. Jahrhundert Maschinen erfand, die nur Holland anwandte, und wie manche französische Erfindung des 18. Jahrhunderts nur in England ausgebeutet ward. Die Maschine selbst produziert in älter entwickelten Ländern durch ihre Anwendung auf einige Geschäftszweige in andren Zweigen solchen Arbeitsüberfluß (redundancy of labour,

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impedes the use of machinery, and, from the standpoint of the capitalist, whose profit comes, not from a diminution of the labor employed, but of the labor paid for, renders that use superfluous and often impossible.

^{116a} Hence in a communistic society there would be a very different scope for the employment of machinery than there can be in a bourgeois society.

Fights for higher wages and shorter hours led to the introduction of machinery.

In some branches of the woollen manufacture in England the employment of children has during recent years been considerably diminished, and in some cases has been entirely abolished. Why? Because the Factory Acts made two sets of children necessary, one working six hours, the other four, or each working five hours. But the parents refused to sell the "half-timers" cheaper than the "full-timers." Hence the substitution of machinery for the "half-timers."¹¹⁷

¹¹⁷ "Employers of labor would not unnecessarily retain two sets of children under thirteen ... In fact one class of manufacturers, the spinners of woollen yarn, now rarely employ children under thirteen years of age, i.e., half-timers. They have introduced improved and new machinery of various kinds, which altogether supersedes the employment of children (i.e., under 13 years); f.i., I will mention one process as an illustration of this diminution in the number of children, wherein by the addition of an apparatus, called a piecing machine, to existing machines, the work of six or four half-timers, according to the peculiarity of each machine, can be performed by one young person (over 13 years) ... the half-time system 'stimulated' the invention of the piecing machine." (Reports of Insp. of Fact. for 31st Oct., 1858.)

⇓ Mining:

Before the labor of women and of children under 10 years of age was forbidden in mines, capitalists considered the employment of naked women and girls, often in

sagt Ricardo), daß hier der Fall des Arbeitslohns unter den Wert der Arbeitskraft den Gebrauch der Maschinerie verhindert und ihn vom Standpunkt des Kapitals, dessen Gewinn ohnehin aus der Verminderung nicht der angewandten, sondern der bezahlten Arbeit entspringt, überflüssig, oft unmöglich macht.

^{116a} Note zur 2. Ausgabe. In einer kommunistischen Gesellschaft hätte daher die Maschinerie einen ganz andren Spielraum als in der bürgerlichen Gesellschaft.

In einigen Zweigen der englischen Wollmanufaktur ist während der letzten Jahre die Kinderarbeit sehr vermindert, hier und da fast verdrängt worden. Warum? Der Fabrikakt ernötigte eine doppelte Kinderreihe, von denen je eine 6, die andre 4 Stunden, oder jede nur 5 Stunden arbeitet. Die Eltern wollten aber die half-times (Halbzeitler) nicht wohlfeiler verkaufen als früher die full-times (Vollzeitler). Daher Ersetzung der half-times durh Maschinerie.¹¹⁷

¹¹⁷ „Die Anwender der Arbeit wollen nicht unnötig zwei Schichten von Kindern unter dreizehn in Dienst nehmen ... Eine Gruppe von Fabrikanten, die Spinner von Wollgarn, verwendet tatsächlich heute selten Kinder unter dreizehn Jahren, d.h. Halbzeitler. Sie haben verbesserte und neue Maschinen verschiedener Art eingeführt, durch die eine Verwendung von Kindern“ (d.h. unter 13 J.) „ganz überflüssig wurde; als Beispiel will ich zur Illustration für diese Verminderung der Zahl der Kinder einen Arbeitsprozeß erwähnen, bei dem an die bestehenden Maschinen ein Apparat, genannt Anstückmaschine, angeschlossen wurde, durch den die Arbeit von sechs oder vier Halbzeitlern, je nach der Beschaffenheit der einzelnen Maschine, von einer jugendlichen Person“ (über 13 J.) „geleistet werden kann ... Das Halbzeitsystem“ stimulierte „die Erfindung der Anstückmaschine.“ („Reports of Insp. of Fact. for 31st Oct. 1858“, [p. 42, 43].)

Vor dem Verbot der Arbeit von Weibern und Kindern (unter 10 Jahren) in Minen fand das Kapital die Methode, nackte Weiber und Mädchen, oft mit Männern zusam-

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company with men, so far sanctioned by their moral code, and especially by their ledgers, that it was only after the passing of the Act that they had recourse to machinery.

↓ Stone-breaking:

The Yankees have invented a stone-breaking machine. The English do not make use of it, because the “wretch” (“Wretch” is the recognised term in English Political Economy for the agricultural laborer) who does this work gets paid for such a small portion of his labor, that machinery would increase the cost of production to the capitalist./fn36

¹¹⁸ “Machinery . . . can frequently not be employed until labor (he means wages) rises.” (Ricardo, l.c., p. 479.)

mengebunden in Kohlen- und andren Minen zu vernutzen, so übereinstimmend mit seinem Moralkodex und namentlich auch seinem Hauptbuch, daß es erst nach dem Verbot zur Maschinerie griff.

Die Yankees haben Maschinen zum Steinklopfen erfunden. Die Engländer wenden sie nicht an, weil der „Elende“ („wretch“ ist Kunstaussdruck der englischen politischen Ökonomie für den Agrikulturarbeiter), der diese Arbeit verrichtet, einen so geringen Teil seiner Arbeit bezahlt erhält, daß Maschinerie die Produktion für den Kapitalisten verteuern würde.¹¹⁸

¹¹⁸ „Maschinerie . . . kann häufig solange nicht verwendet werden, solange die Arbeit“ (er meint Lohn) „nicht steigt.“ (Ricardo, l.c. p. 479.)

Question 1006 *Why did high wages and advanced technology historically go together in the USA?*

↓ Women to haul canal boats:

In England women are still occasionally used instead of horses for hauling canal boats./fn37 because the labor required to produce horses and machines is an accurately known quantity, while that required to maintain the women of the surplus-population is too little to be accounted for.

¹¹⁹ See “Report of the Social Science Congress, at Edinburgh.” Oct., 1863.

Summary:

Hence nowhere do we find a more shameful squandering of human labor-power for the most despicable purposes than in England, the land of machinery.

In England werden gelegentlich statt der Pferde immer noch Weiber zum Ziehn usw. bei den Kanalbooten verwandt,¹¹⁹ weil die zur Produktion von Pferden und Maschinen erheischte Arbeit ein mathematisch gegebenes Quantum, die zur Erhaltung von Weibern der Surpluspopulation dagegen unter aller Berechnung steht.

¹¹⁹ Sieh „Report of the Social Science Congress at Edinburgh. Octob. 1863“.

Man findet daher nirgendwo schamlosere Verschwendung von Menschenkraft für Lumpereien, als gerade in England, dem Land der Maschinen.

Question 1007 *Why could one, at Marx’ times, find nowhere “a more shameful squandering of human labor-power for the most despicable purposes than in England, the land of machinery”? (p. 515:1/oo.)*

15.3. Proximate Effects of Machinery on the Worker

The first paragraph gives a brief orientation where we are in the chapter.

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397:1/o The starting-point of Modern Industry is, as we have shown, the revolution in the instruments of labor, and this revolution attains its most highly developed form in the organized system of machinery in a factory. Before we inquire how human material is incorporated with this objective organism, let us consider some general effects of this revolution on the laborer himself.

416:1 Den Ausgangspunkt der großen Industrie bildet, wie gezeigt, die Revolution des Arbeitsmittels, und das umgewälzte Arbeitsmittel erhält seine meist entwickelte Gestalt im gegliederten Maschinensystem der Fabrik. Bevor wir zusehn, wie diesem objektiven Organismus Menschenmaterial einverleibt wird, betrachten wir einige allgemeine Rückwirkungen jener Revolution auf den Arbeiter selbst.

↑ This section here discusses the *general* effects of the introduction of machinery on the workers. The relation between worker and machinery in the work-process itself will be discussed in section 4.

↓ Is machinery, a means introduced to replace the worker, successful at replacing workers? The answer is yes, namely, it replaces able-bodied and highly skilled male workers with women and children.

15.3.a. Appropriation of Supplementary Labor-Power by Capital. The Employment of Women and Children

Instead of decreasing the demand for labor, the first effect of machinery is to *increase* the supply of exploitable workers under capitalism. How? Women and children are now able to do the lighter machine labor.

398:1 In so far as machinery dispenses with muscular power, it becomes a means of employing laborers of slight muscular strength, and those whose bodily development is incomplete, but whose limbs are all the more supple. The labor of women and children was, therefore, the first thing sought for by capitalists who used machinery. That mighty substitute for labor and laborers turned into a means for increasing the number of wage-laborers by enrolling, under the direct sway of capital, every member of the workman's family, without distinction of age or sex. Compulsory work for the capitalist usurped the place, not only of the children's play, but also of free labor at home within moderate limits for the support of the family.¹²⁰

416:2 Sofern die Maschinerie Muskelkraft entbehrlich macht, wird sie zum Mittel, Arbeiter ohne Muskelkraft oder von unreifer Körperentwicklung, aber größerer Geschmeidigkeit der Glieder anzuwenden. Weiber- und Kinderarbeit war daher das erste Wort der kapitalistischen Anwendung der Maschinerie! Dies gewaltige Ersatzmittel von Arbeit und Arbeitern verwandelte sich damit sofort in ein Mittel, die Zahl der Lohnarbeiter zu vermehren durch Einreihung aller Mitglieder der Arbeiterfamilie, ohne Unterschied von Geschlecht und Alter, unter die unmittelbare Botmäßigkeit des Kapitals. Die Zwangsarbeit für den Kapitalisten usurpierte nicht nur die Stelle des Kinderspiels, sondern auch der freien Arbeit im häuslichen Kreis, innerhalb sittlicher Schranke, für die Familie selbst.¹²⁰

Question 1008 *How does machinery, since it saves labor, increase the exploitable workforce under capitalism?*

In the following, Marx will enumerate five consequences of the employment of children: it lowers wages, children are traded as slaves, infant mortality surges, children are deprived

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of schooling, and the resistance of the male workers is broken. ↓ Footnote 120 already anticipates some of these consequences.

¹²⁰ Dr. Edward Smith, during the cotton crisis caused by the American Civil War, was sent by the English Government to Lancashire, Cheshire, and other places, to report on the sanitary condition of the cotton operatives. He reported, that from a hygienic point of view, and apart from the banishment of the operatives from the factory atmosphere, the crisis had several advantages. The women now had sufficient leisure to give their infants the breast, instead of poisoning them with "Godfrey's cordial." They had time to learn to cook. Unfortunately the acquisition of this art occurred at a time when they had nothing to cook. But from this we see how capital, for the purposes of its self-expansion, has usurped the labor necessary in the home of the family. This crisis was also utilised to teach sewing to the daughters of the workmen in sewing schools. An American revolution and a universal crisis are necessary so that the working girls, who spin for the whole world, can learn to sew!

¹²⁰ Dr. Edward Smith wurde während der den Amerikanischen Bürgerkrieg begleitenden Baumwollkrise von der englischen Regierung nach Lancashire, Cheshire usw. geschickt, zur Berichterstattung über den Gesundheitszustand der Baumwollarbeiter. Er berichtet u.a.: Hygienisch habe die Krise, abgesehen von der Verbannung der Arbeiter aus der Fabrikatmosphäre, vielerlei andre Vorteile. Die Arbeiterfrauen fänden jetzt die nötige Muße, ihren Kindern die Brust zu reichen, statt sie mit Godfrey's Cordial (einem Opiat) zu vergiften. Sie hätten die Zeit gewonnen, kochen zu lernen. Unglücklicherweise fiel diese Kochkunst in einen Augenblick, wo sie nichts zu essen hatten. Aber man sieht, wie das Kapital die für die Konsumtion nötige Familienarbeit usurpiert hat zu seiner Selbstverwertung. Ebenso wurde die Krise benutzt, um in eignen Schulen die Töchter der Arbeiter nähen zu lehren. Eine amerikanische Revolution und eine Weltkrise erheischt, damit die Arbeitermädchen, die für die ganze Welt spinnen, nähen lernen!

↓ (1) Lowering of wages and increase in the degree of exploitation, because more members of the same family are working.

398:2/o The value of labor-power was determined, not only by the labor-time necessary to maintain the individual adult laborer, but also by that necessary to maintain his family. Machinery, by throwing every member of that family on to the labor-market, spreads the value of the man's labor-power over his whole family. It thus depreciates his labor-power. To purchase the labor-power of a family of four workers may, perhaps, cost more than it formerly did to purchase the labor-power of the head of the family, but, in return, four days' labor takes the place of one, and their price falls in proportion to the excess of the surplus-labor of four over the surplus-labor of one. In order that the family may live, four people must now, not only labor, but expend surplus-labor for the capitalist. Thus we see, that machinery, while augmenting the human material that forms the principal object of capital's exploiting power,¹²¹ at the same time raises the degree of exploitation.

417:1 Der Wert der Arbeitskraft war bestimmt nicht nur durch die zur Erhaltung des individuellen erwachsenen Arbeiters, sondern durch die zur Erhaltung der Arbeiterfamilie nötige Arbeitszeit. Indem die Maschinerie alle Glieder der Arbeiterfamilie auf den Arbeitsmarkt wirft, verteilt sie den Wert der Arbeitskraft des Mannes über seine ganze Familie. Sie entwertet daher seine Arbeitskraft. Der Ankauf der in 4 Arbeitskräfte z.B. parzellierten Familie kostet vielleicht mehr als früher der Ankauf der Arbeitskraft des Familienhaupts, aber dafür treten 4 Arbeitstage an die Stelle von einem, und ihr Preis fällt im Verhältnis zum Überschuß der Mehrarbeit der vier über die Mehrarbeit des einen. Vier müssen nun nicht nur Arbeit, sondern Mehrarbeit für das Kapital liefern, damit eine Familie lebe. So erweitert die Maschinerie von vornherin mit dem menschlichen Exploitationsmaterial, dem eigensten Ausbeutungsfeld des Kapitals,¹²¹ zugleich den Exploitationsgrad.

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↑ Even if the total wage received by the family increases, they have to work longer for it, i.e., the price of labor falls.

¹²¹ “The numerical increase of laborers has been great, through the growing substitution of female for male, and above all, of childish for adult labor. Three girls of 13, at wages of from 6 shillings to 8 shillings a week, have replaced the one man of mature age, of wages varying from 18 shillings to 45 shillings.” (Th. de Quincey: “The Logic of Political Econ.,” London, 1844. Note to p. 147.) Since certain family functions, such as nursing and suckling children, cannot be entirely suppressed, the mothers confiscated by capital, must try substitutes of some sort. Domestic work, such as sewing and mending, must be replaced by the purchase of ready-made articles. Hence, the diminished expenditure of labor in the house is accompanied by an increased expenditure of money. The cost of keeping the family increases, and balances the greater income.

¹²¹ „Die Zahl der Arbeiter hat sehr zugenommen, weil man immer mehr Männer durch Frauenarbeit und vor allem Erwachsenen- durch Kinderarbeit ersetzt. Drei Mädchen im Alter von 13 Jahren mit Löhnen von 6 bis 8 sh. die Woche haben einen Mann reifen Alters mit einem Lohn von 18 bis 45 sh. verdrängt.“ (Th. de Quincey, „The Logic of Politic. Econ.“, Lond. 1844, Note zu p. 147.) Da gewisse Funktionen der Familie, z.B. Warten und Säugen der Kinder usw., nicht ganz unterdrückt werden können, müssen die vom Kapital konfiszierten Familienmütter mehr oder minder Stellvertreter dinge. Die Arbeiten, welche der Familienkonsum erheischt, wie Nähen, Flicken usw., müssen durch Kauf fertiger Waren ersetzt werden. Der verminderten Ausgabe von häuslicher Arbeit entspricht also vermehrte Geldausgabe. Die Produktionskosten der Arbeiterfamilie wachsen daher und gleichen die Mehreinnahme aus.

↓ With much of household production contracted out and/or replaced by purchased goods, it is not possible to be as economical as a home maker:

In addition to this, economy and judgment in the consumption and preparation of the means of subsistence becomes impossible.

Es kommt hinzu, daß Ökonomie und Zweckmäßigkeit in Vernutzung und Bereitung der Lebensmittel unmöglich werden.

↓ None of this discussed in books on Political Economy but documented in reports of factory inspectors.

Abundant material relating to these facts, about which official Political Economy remains silent, is to be found in the Reports of the Inspectors of Factories, of the Children’s Employment Commission, and more especially in the Reports on Public Health.

Über diese von der offiziellen politischen Ökonomie verheimlichten Tatsachen findet man reichliches Material in den „Reports“ der Fabrikinspektoren, der „Children’s Employment Commission“ und namentlich auch den „Reports on Public health“.

The word *verheimlicht* means it is a deliberate omission.

↓ (2) The formal mediation of the capital relation, i.e., the contract between laborer and capitalist, is overturned. Since the children do not have full rights, slave-dealership with children.

399:1–401:0 Machinery also revolutionizes out and out the formal mediation of the capital relation, i.e., the contract between laborer and capitalist. Taking the exchange of commodities as our basis, our first assumption was that capitalist and laborer met as free persons, as independent owners of

417:2–419:0 Sie revolutioniert ebenso von Grund aus die formelle Vermittlung des Kapitalverhältnisses, den Kontrakt zwischen Arbeiter und Kapitalist. Auf Grundlage des Warenaustausches war es erste Voraussetzung, daß sich Kapitalist und Arbeiter als freie Personen, als unabhängige Waren-

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commodities; the one possessing money and means of production, the other labor-power. But now the capitalist buys children and young persons under age. Previously, the workman sold his own labor-power, which he disposed of nominally as a free agent. Now he sells wife and child. He has become a slave-dealer.¹²²

¹²² In striking contrast with the great fact, that the shortening of the hours of labor of women and children in English factories was exacted from capital by the male operatives, we find in the latest reports of the Children's Employment Commission traits of the operative parents in relation to the traffic in children, that are truly revolting and thoroughly like slave-dealing. But the Pharisee of a capitalist, as may be seen from the same reports, denounces this brutality which he himself creates, perpetuates, and exploits, and which he moreover baptises "freedom of labor." "Infant labor has been called into aid . . . even to work for their own daily bread. Without strength to endure such disproportionate toil, without instruction to guide their future life, they have been thrown into a situation physically and morally polluted. The Jewish historian has remarked upon the overthrow of Jerusalem by Titus that it was no wonder it should have been destroyed, with such a signal destruction, when an inhuman mother sacrificed her own offspring to satisfy the cravings of absolute hunger." ("Public Economy Concentrated." Carlisle, 1833, p. 66.)

⇓ Help-wanted ad for child labor:

The demand for children's labor often resembles in form the inquiries for negro slaves, such as were formerly to be read among the advertisements in American journals.

"My attention," says an English factory inspector, "was drawn to an advertisement in the local paper of one of the most important manufacturing towns of my district, of which the following is a copy: Wanted, 12 to 20 young persons, not younger than what can pass for 13 years. Wages, 4 shillings a week.] Apply etc."¹²³

besitzer, der eine Besitzer von Geld und Produktionsmitteln, der andre Besitzer von Arbeitskraft, gegenübertraten. Aber jetzt kauft das Kapital Unmündige oder Halbmündige. Der Arbeiter verkaufte früher seine eigne Arbeitskraft, worüber er als formell freie Person verfügte. Er verkauft jetzt Weib und Kind. Er wird Sklavenhändler.¹²²

¹²² Im Kontrast zur großen Tatsache, daß die Beschränkung der Weiber- und Kinderarbeit in den englischen Fabriken von den erwachsenen männlichen Arbeitern dem Kapital aberobert wurde, findet man noch in den jüngsten Berichten der „Children's Employment Commission“ wahrhaft empörende und durchaus sklavenhändlerische Züge der Arbeitereltern mit Bezug auf den Kinderschacher. Der kapitalistische Pharisee aber, wie man aus denselben „Reports“ sehn kann, denunziert diese von ihm selbst geschaffne, verewigte und exploitierte Bestialität, die er sonst „Freiheit der Arbeit“ tauft. „Arbeit von kleinen Kindern wurde zu Hilfe genommen . . . sogar um für ihr eigen täglich Brot zu arbeiten. Ohne die Kraft, eine so über alles Maß schwere Arbeit zu ertragen, ohne Belehrung, die ihrer künftigen Lebensführung zustatten käme, wurden sie in eine physisch und moralisch verseuchte Umgebung hineingestoßen. Der jüdische Historiker hat über die Zerstörung Jerusalems durch Titus die Bemerkung gemacht, es sei kein Wunder gewesen, daß die Stadt vernichtet, ja so völlig vernichtet worden sei, wenn eine unmenschliche Mutter ihren eigenen Sprößling opferte, um die Gier hemmungslosen Hungers zu stillen.“ „Public Economy Concentrated“, Carlisle 1833, p. 66.)

Die Nachfrage nach Kinderarbeit gleicht oft auch in der Form der Nachfrage nach Negerklaven, wie man sie in amerikanischen Zeitungsinseraten zu lesen gewohnt war.

„Meine Aufmerksamkeit“, sagt z.B. ein englischer Fabrikinspektor, „wurde gelenkt auf eine Annonce in dem Lokalblatt einer der bedeutendsten Manufakturstädte meines Distrikts, wovon folgendes die Kopie: Gebraucht 12 bis 20 Jungen, nicht jünger, als was für 13 Jahre passieren kann. Lohn 4 sh. per Woche. Anzufragen etc.“¹²³

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The phrase “what can pass for 13 years,” has reference to the fact, that by the Factory Act, children under 13 years may work only 6 hours. A surgeon officially appointed must certify their age. The manufacturer, therefore, asks for children who look as if they we’re already 13 years old.

¹²³ A. Redgrave in “Reports of Insp. of Fact. for 31st October, 1858,” pp. 40, 41.

↓ Fraud by “certifying surgeons” statistically revealed.

The decrease, often by leaps and bounds, in the number of children under 13 years employed in factories, a decrease that is shown in an astonishing manner by the English statistics of the last 20 years, was for the most part, according to the evidence of the factory inspectors themselves, the work of the certifying surgeons, who overstated the age of the children, agreeably to the capitalist’s greed for exploitation, and the sordid trafficking needs of the parents.

↓ Open market place for children:

In the notorious district of Bethnal Green, a public market is held every Monday and Tuesday morning, where children of both sexes from 9 years of age upwards, hire themselves out to the silk manufacturers. “The usual terms are 1 s. 8 d. a week (this belongs to the parents) and ‘2d. for myself and tea.’ The contract is binding only for the week. The scene and language while this market is going on are quite disgraceful.”¹²⁴ It still occurs in England, that women “take children from the workhouse and let any one have them out for 2s. 6d. a week.”¹²⁵ In spite of legislation, the number of boys sold in Great Britain by their parents to act as live chimney-sweeping machines (although there exist plenty of machines to replace them) exceeds 2,000.¹²⁶

¹²⁴ “Children’s Employment Commission, Fifth Report,” London, 1866, p. 81, n. 31. {Added in the 4th German edition.—The Beth-

Die Phrase „was für 13 Jahre passieren kann“ bezieht sich darauf, daß nach dem Factory Act Kinder unter 13 Jahren nur 6 Stunden arbeiten dürfen. Ein amtlich qualifizierter Arzt (certifying surgeon) muß das Alter bescheinigen. Der Fabrikant verlangt also Jungen, die so aussehen, als ob sie schon dreizehnjährig.

¹²³ A. Redgrave in „Reports of Insp. of Fact. for 31st October 1858“, p. 40, 41.

Die manchmal sprungweise Abnahme in der Anzahl der von Fabrikanten beschäftigten Kinder unter 13 Jahren, überraschend in der englischen Statistik der letzten 20 Jahre, war nach Aussage der Fabrikinspektoren selbst größtenteils das Werk von certifying surgeons, welche das Kindesalter der Exploitationslust der Kapitalisten und dem Schacherbedürfnis der Eltern gemäß verschoben.

In dem berüchtigten Londoner Distrikt von Bethnal Green wird jeden Montag und Dienstag morgen offener Markt gehalten, worin Kinder beiderlei Geschlechts vom 9. Jahre an sich selbst an die Londoner Seidenmanufakturen vermieten. „Die gewöhnlichen Bedingungen sind 1 sh. 8 d. die Woche (die den Eltern gehören) und 2 d. für mich selbst nebst Tee.“ Die Kontrakte gelten nur für die Woche. Die Szenen und die Sprache während der Dauer dieses Markts sind wahrhaft empörend.¹²⁴ Es kommt immer noch in England vor, daß Weiber „Jungen vom Workhouse nehmen und sie jedem beliebigen Käufer für 2 sh. 6 d. wöchentlich vermieten“.¹²⁵ Trotz der Gesetzgebung werden immer noch mindestens 2000 Jungen in Großbritannien als lebendige Schornsteinfegermaschinen (obgleich Maschinen zu ihrem Ersatz existieren) von ihren eignen Eltern verkauft.¹²⁶

¹²⁴ „Children’s Employment Commission, V. Report“, London 1866, p. 81, n. 31. { Zur 4. Aufl.—Die Seidenindustrie von Bethnal Green

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nal Green silk industry is now almost destroyed.—
F. E.}

¹²⁵ “Children’s Employment Commission,
Third Report,” London, 1864, p. 53, n. 15.

¹²⁶ *I.c.*, Fifth Report, p. 22, n. 137.

↓ Since the wage labor transaction has lost here even the semblance of a transaction between free persons, the state has a legal pretext to intervene:

The revolution effected by machinery in the juridical relations between the buyer and the seller of labor-power, causing the transaction as a whole to lose the appearance of a contract between free persons, afforded the English Parliament an excuse, founded on juridical principles, for the interference of the state with factories. Whenever the law limits the labor of children to 6 hours in industries not before interfered with, the complaints of the manufacturers are always renewed. They allege that numbers of the parents withdraw their children from the industry brought under the Act, in order to sell them where “freedom of labor” still rules, i.e., where children under 13 years are compelled to work like grown-up people, and therefore can be got rid of at a higher price.

↓ The following thought was also given in Chapter Ten:

But since capital is by nature a leveller, since it exacts in every sphere of production equality in the conditions of the exploitation of labor, the limitation by law of children’s labor, in one branch of industry, becomes the cause of its limitation in others.

↓ (3) Enormous infant mortality because the women have to work:

401:1–403:1 We have already alluded to the physical deterioration as well of the children and young-persons as of the women, whom machinery, first directly in the factories that shoot up on its basis, and then indirectly in all the remaining branches of industry, subjects to the exploitation of capital. In this place, therefore, we dwell only on one point, the enormous mortality, during the first few years of their life, of the children of the operatives. In sixteen of the registration districts into which England is divided, there are, for every 100,000 children alive under the age of one year, only

ist jetzt fast vernichtet.—F. E.}

¹²⁵ „Child. Employm. Comm., III. Report“, Lond. 1864, p. 53, n. 15.

¹²⁶ *I.c.*, „V. Report“, p. XXII, n. 137.

Die von der Maschinerie bewirkte Revolution im Rechtsverhältnis zwischen Käufer und Verkäufer der Arbeitskraft, so daß die ganze Transaktion selbst den Schein eines Kontrakts zwischen freien Personen verliert, bot dem englischen Parlament später den juristischen Entschuldigungsgrund für Staatseinmischung in das Fabrikwesen. Sooft das Fabrikgesetz die Kinderarbeit in bisher unangefochtenen Industriezweigen auf 6 Stunden beschränkt, ertönt stets neu der Fabrikantenjammer: ein Teil der Eltern entziehe die Kinder nun der gemäßregelten Industrie, um sie in solche zu verkaufen, wo noch „Freiheit der Arbeit“ herrscht, d.h., wo Kinder unter 13 Jahren gezwungen werden, wie Erwachsene zu arbeiten, also auch teurer loszuschlagen sind.

Da aber das Kapital von Natur ein Leveller ist, d.h. in allen Produktionssphären Gleichheit der Exploitationsbedingungen der Arbeit als sein angeborenes Menschenrecht verlangt, wird die legale Beschränkung der Kinderarbeit in einem Industriezweig Ursache ihrer Beschränkung in dem andren.

419:1–421:4 Bereits früher wurde der physische Verderb der Kinder und jungen Personen angedeutet, wie der Arbeiterweiber, welche die Maschinerie erst direkt in den auf ihrer Grundlage aufschießenden Fabriken und dann indirekt in allen übrigen Industriezweigen der Exploitation des Kapitals unterwirft. Hier verweilen wir daher nur bei einem Punkt, der ungeheuren Sterblichkeit von Arbeiterkindern in ihren ersten Lebensjahren. In England gibt es 16 Registrationsdistrikte, wo im jährlichen Durchschnitt auf 100 000 lebende Kinder unter einem Jahr nur 9085 Todesfälle (in einem

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9,000 deaths in a year on an average (in one district only 7,047); in 24 districts the deaths are over 10,000, but under 11,000; in 39 districts, over 11,000, but under 12,000; in 48 districts over 12,000, but under 13,000; in 22 districts over 20,000; in 25 districts over 21,000; in 17 over 22,000; in 11 over 23,000; in Hoo, Wolverhampton, Ashton-under-Lyne, and Preston, over 24,000; in Nottingham, Stockport, and Bradford, over 25,000; in Wisbeach, 16,000; and in Manchester, 26,125.¹²⁷ As was shown by an official medical inquiry in the year 1861, the high death-rates are, apart from local causes, principally due to the employment of the mothers away from their homes, and to the neglect and maltreatment, consequent on her absence, such as, amongst others, insufficient nourishment, unsuitable food, and dosing with opiates; besides this, there arises an unnatural estrangement between mother and child, and as a consequence intentional starving and poisoning of the children.¹²⁸

¹²⁷ „Sixth Report on Public Health,” Lond., 1864, p. 34.

¹²⁸ „It (the inquiry of 1861) ... showed, moreover, that while, with the described circumstances, infants perish under the neglect and mismanagement which their mothers' occupations imply, the mothers become to a grievous extent denaturalised towards their offspring—commonly not troubling themselves much at the death, and even sometimes ... taking direct measures to insure it.” (l.c.)

⇓ Agricultural districts have least mortality:

In those agricultural districts, “where a minimum in the employment of women exists, the death-rate is on the other hand very low.”¹²⁹

¹²⁹ l.c., p. 454.

⇓ Unexpected outlier explained:

The Inquiry Commission of 1861 led, however, to the unexpected result, that in some purely agricultural districts bordering on the North Sea, the death-rate of children un-

Distrikt nur 7047) kommen, in 24 Distrikten über 10 000, aber unter 11 000, in 39 Distrikten über 11 000, aber unter 12 000, in 48 Distrikten über 12 000, aber unter 13 000, in 22 Distrikten über 20 000, in 25 Distrikten über 21 000, in 17 über 22 000, in 11 über 23 000, in Hoo, Wolverhampton, Ashton-under-Lyne und Preston über 24 000, in Nottingham, Stockport und Bradford über 25 000, in Wisbeach 26 001 und in Manchester 26 125.¹²⁷ Wie eine offizielle ärztliche Untersuchung im Jahre 1861 nachwies, sind, von Lokalumständen abgesehen, die hohen Sterblichkeitsraten vorzugsweise der außerhäuslichen Beschäftigung der Mütter geschuldet und der daher entspringenden Vernachlässigung und Mißhandlung der Kinder, u.a. unpassender Nahrung, Mangel an Nahrung, Fütterung mit Opiaten usw., dazu die unnatürliche Entfremdung der Mütter gegen ihre Kinder, im Gefolge davon absichtliche Aushungerung und Vergiftung.¹²⁸

¹²⁷ „Sixth Report on Public Health“, Lond. 1864, p. 34.

¹²⁸ „Sie“ (die Untersuchung von 1861) „... zeigte überdies, daß, während unter den beschriebenen Umständen die Kleinkinder an der Vernachlässigung und schlechten Behandlung zugrunde gehen, die durch die Arbeit ihrer Mütter bedingt sind, die Mütter in erschreckendem Ausmaß die natürlichen Regungen gegenüber ihren Sprößlingen verlieren—gewöhnlich kümmert sie deren Tod nicht sehr, und manchmal ... ergreifen sie direkte Maßnahmen, um ihn herbeizuführen.“ (l.c.)

In solchen Agrikulturdistrikten, „wo ein Minimum weiblicher Beschäftigung existiert, ist dagegen die Sterblichkeitsrate am niedrigsten“¹²⁹.

¹²⁹ l.c. p. 454.

Die Untersuchungskommission von 1861 ergab jedoch das unerwartete Resultat, daß in einigen an der Nordsee gelegenen rein ackerbauenden Distrikten die Sterblich-

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der one year old almost equalled that of the worst factory districts. Dr. Julian Hunter was therefore commissioned to investigate this phenomenon on the spot. His report is incorporated with the "Sixth Report on Public Health."¹³⁰ Up to that time it was supposed, that the children were decimated by malaria, and other diseases peculiar to low-lying and marshy districts. But the inquiry showed the very opposite, namely,

that the same cause which drove away malaria, the conversion of the land, from a morass in winter and a scanty pasture in summer, into fruitful corn land, created the exceptional death-rate of the infants.¹³¹

The 70 medical men, whom Dr. Hunter examined in that district, were "wonderfully in accord" on this point. In fact, the revolution in the mode of cultivation had led to the introduction of the industrial system.

"Married women, who work in gangs along with boys and girls, are, for a stipulated sum of money, placed at the disposal of the farmer, by a man called the 'undertaker', who contracts for the whole gang. These gangs will sometimes travel many miles from their own village; they are to be met morning and evening on the roads, dressed in short petticoats, with suitable coats and boots, and sometimes trousers, looking wonderfully strong and healthy, but tainted with a customary immorality and heedless of the fatal results which their love of this busy and independent life is bringing on their unfortunate offspring who are pining at home."¹³²

↑ The women liked this active and independent life.

¹³⁰ I.c., pp. 454–463. "Report by Dr. Henry Julian Hunter on the excessive mortality of infants in some rural districts of England."

¹³¹ I.c., p. 35 and pp. 455, 456.

¹³² I.c., p. 456.

Every phenomenon of the factory districts is here reproduced, including, but to a greater extent, ill-disguised infanticide, and dosing children with opiates.¹³³

keitsrate von Kindern unter einem Jahr fast die der verrufensten Fabrikdistrikte erreichte. Dr. Julian Hunter wurde daher beauftragt, dies Phänomen an Ort und Stelle zu erforschen. Sein Bericht ist dem „VI. Report on Public Health“ einverleibt.¹³⁰ Man hatte bisher vermutet, Malaria und andre, niedrig gelegenen und sumpfigen Landstrecken eigentümliche Krankheiten dezimierten die Kinder. Die Untersuchung ergab das grade Gegenteil, nämlich,

„daß dieselbe Ursache, welche die Malaria vertrieb, nämlich die Verwandlung des Bodens aus Morast im Winter und dürrtlicher Weide im Sommer in fruchtbares Kornland, die außerordentliche Todesrate der Säuglinge schuf.“¹³¹

Die 70 ärztlichen Praktiker, die Dr. Hunter in jenen Distrikten verhörte, waren „wunderbar einstimmig“ über diesen Punkt. Mit der Revolution der Bodenkultur wurde nämlich das industrielle System eingeführt.

„Verheiratete Weiber, die in Banden mit Mädchen und Jungen zusammen arbeiten, werden dem Pächter von einem Manne, welcher der „Gangmeister“ heißt und die Banden im ganzen mietet, für eine bestimmte Summe zur Verfügung gestellt. Diese Banden wandern oft viele Meilen von ihren Dörfern weg, man trifft sie morgens und abends auf den Landstraßen, die Weiber bekleidet mit kurzen Unterröcken und entsprechenden Röcken und Stiefeln und manchmal Hosen, sehr kräftig und gesund von Aussehn, aber verdorben durch gewohnheitsmäßige Liederlichkeit und rücksichtslos gegen die unheilvollen Folgen, welche ihre Vorliebe für diese tätige und unabhängige Lebensart auf ihre Sprößlinge wälzt, die zu Haus verkümmern.“¹³²

¹³⁰ I.c. p. 454–462. „Reports by Dr. Henry Julian Hunter on the excessive mortality of infants in some rural districts of England.“

¹³¹ I.c. p. 35 u. p. 455, 456.

¹³² I.c. p. 456.

Alle Phänomene der Fabrikdistrikte reproduzieren sich hier, in noch höherem Grad versteckter Kindermord und Behandlung der Kinder mit Opiaten.¹³³

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¹³³ In the agricultural as well as in the factory districts the consumption of opium among the grown-up laborers, both male and female, is extending daily. "To push the sale of opiate ... is the great aim of some enterprising wholesale merchants. By druggists it is considered the leading article." (l.c., p. 459.) Infants that take opiates "shrank up into little old men," or "wizened like little monkeys." (l.c., p. 460.) We here see how India and China avenged themselves on England.

"My knowledge of such evils," says Dr. Simon, the medical officer of the Privy Council and editor in chief of the Reports on Public Health, "may excuse the profound misgiving with which I regard any large industrial employment of adult women."¹³⁴ "Happy indeed," exclaims Mr. Baker, the factory inspector, in his official report, "happy indeed will it be for the manufacturing districts of England, when every married woman having a family is prohibited from working in any textile works at all."¹³⁵

¹³⁴ l.c., p. 37.

¹³⁵ "Rep. of Insp. of Fact. for 31st Oct., 1862," p. 59. Mr. Baker was formerly a doctor.

(4) Intellectual desolation; although schools were required by law, the laws were carelessly written and did not ensure the children were really taught something.

403:2–405:2 The moral degradation caused by the capitalistic exploitation of women and children has been so exhaustively depicted by F. Engels in his "Lage der Arbeitenden Klasse Englands," and other writers, that I need only mention the subject in this place.

↓ Marx distinguishes intellectual desolation (a spoiled mind) from a fallow mind.

But the intellectual desolation artificially produced by converting immature human beings into mere machines for the fabrication of surplus-value, a state of mind clearly distinguishable from that natural ignorance which keeps the mind fallow without destroying its capacity for development, its natural fertility, this desolation finally compelled even the English Parliament to make elementary education a compulsory condi-

¹³³ Wie in den englischen Fabrikdistrikten, so dehnt sich auch in den Agrikulturdistrikten der Opiumkonsum unter den erwachsenen Arbeitern und Arbeiterinnen täglich aus. „Den Verkauf von Opiaten voranzutreiben ... ist das große Ziel einiger unternehmender Großhändler. Von Drogi- sten werden sie als der gangbarste Artikel angesehen.“ (l.c. p. 459.) Säuglinge, die Opiate emp- fingen, „verrumpelten in kleine alte Männchen oder verschrumpfen zu kleinen Affen“. (l.c. p. 460.) Man sieht, wie Indien und China sich an England rächen.

„Meine Kenntnis der von ihr erzeugten Übel“, sagt Dr. Simon, der ärztliche Beamte des eng- lischen Privy-Council und Redakteur en chef der Berichte über „Public Health“, „muß den tiefen Abscheu entschuldigen, womit ich je- de umfassende industrielle Beschäftigung er- wachsener Weiber betrachte.“¹³⁴ „Es wird“, ruft Fabrikinspektor R. Baker in einem offi- ziellen Bericht aus, „es wird in der Tat ein Glück für die Manufakturdistrikte Englands sein, wenn jeder verheirateten Frau, die Fami- lie hat, verboten wird, in irgendeiner Fabrik zu arbeiten.“¹³⁵

¹³⁴ l.c. p. 37.

¹³⁵ „Reports of Insp. of Fact. for 31st Oct. 1862“, p. 59. Dieser Fabrikinspektor war früher Arzt.

421:5–425:0 Die aus der kapitalistischen Exploitation der Weiber- und Kinderarbeit entspringende moralische Verkümmrung ist von F. Engels in seiner „Lage der arbei- tenden Klasse Englands“ und von andren Schriftstellern so erschöpfend dargestellt worden, daß ich hier nur daran erinnere.

Die intellektuelle Verödung aber, künstlich produziert durch die Verwandlung unreifer Menschen in bloße Maschinen zur Fabrika- tion von Mehrwert und sehr zu unterschei- den von jener naturwüchsigen Unwissen- heit, welche den Geist in Brache legt ohne Verderb seiner Entwicklungsfähigkeit, sei- ner natürlichen Fruchtbarkeit selbst, zwang endlich sogar das englische Parlament in al- len dem Fabrikgesetz unterworfenen Indu-

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tion to the “productive” employment of children under 14 years, in every industry subject to the Factory Acts.

strien, den Elementarunterricht zur gesetzlichen Bedingung für den „produktiven“ Verbrauch von Kindern unter 14 Jahren zu machen.

↓ How capital avoided the legislation requiring schooling for the children:

The spirit of capitalist production stands out clearly in the ludicrous wording of the so-called education clauses in the Factory Acts, in the absence of an administrative machinery, an absence that again makes the compulsion illusory, in the opposition of the manufacturers themselves to these education clauses, and in the tricks and dodges they put in practice for evading them.

Der Geist der kapitalistischen Produktion leuchtete hell aus der liederlichen Redaktion der sog. Erziehungsklauseln der Fabrikakte, aus dem Mangel administrativer Maschinerie, wodurch dieser Zwangsunterricht größtenteils wieder illusorisch wird, aus der Fabrikantenopposition selbst gegen dies Unterrichtsgesetz und aus ihren praktischen Kniffen und Schlichen zu seiner Umgehung.

“For this the legislature is alone to blame, by having passed a delusive law, which, while it would seem to provide that the children employed in factories shall be *educated*, contains no enactment by which that professed end can be secured. It provides nothing more than that the children shall on certain days of the week, and for a certain number of hours (three) in each day, be inclosed within the four walls of a place called a school, and that the employer of the child shall receive weekly a certificate to that effect signed by a person designated by the subscriber as a schoolmaster or schoolmistress.”¹³⁶

„Die Gesetzgebung allein ist zu tadeln, weil sie ein Truggesetz (delusive law) erlassen hat, das unter dem Schein, für die Erziehung der Kinder zu sorgen, keine einzige Bestimmung enthält, wodurch dieser vorgeschützte Zweck gesichert werden kann. Es bestimmt nichts, außer daß die Kinder für eine bestimmte Stundenzahl“ (3 Stunden) „per Tag innerhalb der vier Wände eines Platzes, Schule benamst, eingeschlossen werden sollen und daß der Anwender des Kindes hierüber wöchentlich ein Zertifikat von einer Person erhalten muß, die sich als Schullehrer oder Schullehrerin mit ihrem Namen unterzeichnet.“¹³⁶

¹³⁶ L. Horner in “Reports of Insp. of Fact. for 30th June, 1857,” p. 17.

¹³⁶ Leonard Horner in „Reports of Insp. of Fact. for 30th April 1857“, p. 17.

This has a history. The conditions prior to the 1844 Act were not mitigated, only legalized by the Act.

Previous to the passing of the amended Factory Act, 1844, it happened, not unfrequently, that the certificates of attendance at school were signed by the schoolmaster or schoolmistress with a cross, as they themselves were unable to write.

Vor dem Erlaß des amendierten Fabrikakts von 1844 waren Schulbesuchszertifikate nicht selten, die von Schulmeister oder Schulmeisterin mit einem Kreuz unterzeichnet wurden, da letztere selbst nicht schreiben konnten.

“On one occasion, on visiting a place called a school, from which certificates of school attendance, had issued, I was so struck with the ignorance of the master, that I said to him: ‘Pray, sir, can you read?’ His reply was: ‘Aye, summat!’ and as a justification of his right to grant certificates, he added: ‘At any rate, I am before my scholars.’

„Beim Besuch, den ich einer solchen Zertifikate ausstellenden Schule abstattete, war ich so betroffen von der Unwissenheit des Schulmeisters, daß ich zu ihm sagte: ‚Bitte, mein Herr, können Sie lesen?‘ Seine Antwort war: ‚Ih jeh, Ebbes (summat).‘ Zu seiner Rechtfertigung fügte er hinzu: ‚Jedenfalls stehe ich vor meinen Schülern.‘“

The inspectors, when the Bill of 1844 was in preparation, did not fail to represent the disgraceful state of the places called schools,

Während der Vorbereitung des Akts von 1844 denunzierten die Fabrikinspektoren den schmachvollen Zustand der Plätze, Schu-

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certificates from which they were obliged to admit as a compliance with the laws, but they were successful only in obtaining thus much, that since the passing of the Act of 1844,

“the figures in the school certificate must be filled up in the handwriting of the schoolmaster, who must also sign his Christian and surname in full.”¹³⁷

¹³⁷ L. Horner in “Rep. of Insp. of Fact. for 31st Oct., 1855,” pp. 18, 19.

Sir John Kincaid, factory inspector for Scotland, relates experiences of the same kind.

“The first school we visited was kept by a Mrs. Ann Killin. Upon asking her to spell her name, she straightway made a mistake, by beginning with the letter C, but correcting herself immediately, she said her name began with a K. On looking at her signature, however, in the school certificate books, I noticed that she spelt it in various ways, while her handwriting left no doubt as to her unfitness to teach. She herself also acknowledged that she could not keep the registre ... In a second school I found the schoolroom 15 feet long, and 10 feet wide, and counted in this space 75 children, who were gobbling something unintelligible.”¹³⁸ But it is not only in the miserable places above referred to that the children obtain certificates of school attendance without having received instruction of any value, for in many schools where there is a competent teacher, his efforts are of little avail from the distracting crowd of children of all ages, from infants of 3 years old and upwards; his livelihood, miserable at the best, depending on the pence received from the greatest number of children whom it is possible to cram into the space. To this is to be added scanty school furniture, deficiency of books, and other materials for teaching, and the depressing effect upon the poor children themselves of a close, noisome atmosphere. I have been in many such schools, where I have seen rows of children doing absolutely nothing; and this is certified as school attendance, and, in statistical returns, such children are set down as being educated.”¹³⁹

len benamst, deren Zertifikate sie als zu Gesetz vollgültig zulassen mußten. Alles was sie durchsetzten, war, daß seit 1844

„die Zahlen im Schulzertifikat in der Handschrift des Schulmeisters ausgefüllt, ditto sein Vor- und Zuname von ihm selbst unterschrieben sein müssen“.¹³⁷

¹³⁷ id. in „Reports of Insp. of Fact. for 31st Oct. 1855“, p. 18, 19.

Sir John Kincaid, Fabrikinspektor für Schottland, erzählt von ähnlichen amtlichen Erfahrungen.

„Die erste Schule, die wir besuchten, wurde von einer Mrs. Ann Killin gehalten. Auf meine Aufforderung, ihren Namen zu buchstabieren, machte sie gleich einen Schnitzer, indem sie mit dem Buchstaben C begann, aber sich sofort korrigierend sagte, ihr Name fange mit K an. Bei Ansicht ihrer Unterschrift in den Schulzertifikatbüchern bemerkte ich jedoch, daß sie ihn verschiedenartig buchstabierte, während die Handschrift keinen Zweifel über ihre Lehrunfähigkeit ließ. Auch gab sie selbst zu, sie könne das Register nicht führen ... In einer zweiten Schule fand ich das Schulzimmer 15 Fuß lang und 10 Fuß breit und zählte in diesem Raum 75 Kinder, die etwas Unverständliches herquiekten.“¹³⁸ „Es sind jedoch nicht nur solche Jammerhöhlen, worin die Kinder Schulzertifikate, aber keinen Unterricht erhalten, denn in vielen Schulen, wo der Lehrer kompetent ist, scheitern seine Bemühungen fast ganz an dem sinnverwirrenden Knäuel von Kindern aller Alter, aufwärts von Dreijährigen. Sein Auskommen, elend im besten Fall, hängt ganz von der Zahl der Pence ab, empfangen von der größten Anzahl Kinder, die es möglich ist, in ein Zimmer zu stopfen. Dazu kommt spärliche Schulmöblierung, Mangel an Büchern und andrem Lehrmaterial und die niederschlagende Wirkung einer beunruhigenden und ekelhaften Luft auf die armen Kinder selbst. Ich war in vielen solchen Schulen, wo ich ganze Reihen Kinder sah, die absolut nichts taten; und dies wird als Schulbesuch bescheinigt, und solche Kinder figurieren in der offiziellen Statistik als erzogen (educated).“¹³⁹

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¹³⁸ Sir John Kincaid in "Rep. of Insp. of Fact. for 31st Oct., 1858," pp. 31, 32.

¹³⁹ L. Horner in "Reports, etc., for 31st Oct., 1857," pp. 17, 18.

In Scotland the manufacturers try all they can to do without the children that are obliged to attend school.

"It requires no further argument to prove that the educational clauses of the Factory Act, being held in such disfavour among mill-owners, tend in a great measure to exclude that class of children alike from the employment and the benefit of education contemplated by this Act."¹⁴⁰

¹⁴⁰ Sir J. Kincaid in "Reports, etc., 31st Oct., 1856," p. 66.

⇓ Conditions under a different Act:

Horribly grotesque does this appear in print works, which are regulated by a special Act. By that Act,

"every child, before being employed in a print work must have attended school for at least 30 days, and not less than 150 hours, during the six months immediately preceding such first day of employment, and during the continuance of its employment in the print works, it must attend for a like period of 30 days, and 150 hours during every successive period of six months ... The attendance at school must be between 8 a.m. and 6 p.m. No attendance of less than 2 1/2 hours, nor more than 5 hours on any one day, shall be reckoned as part of the 150 hours. Under ordinary circumstances the children attend school morning and afternoon for 30 days, for at least 5 hours each day, and upon the expiration of the 30 days, the statutory total of 150 hours having been attained, having, in their language, made up their book, they return to the print work, where they continue until the six months have expired, when another instalment of school attendance becomes due, and they again seek the school until the book is again made up ... Many boys having attended school for the required number of hours, when they return to school after the expiration of their six months' work in the print work, are in the same condition as when they first attended school as print-work boys, that they have lost all they gained by

¹³⁸ Sir John Kincaid in „Reports of Insp. of Fact. for 31st Oct. 1858“, p. 31, 32.

¹³⁹ Leonard Horner in „Reports etc. for 30th Apr. 1857“, p. 17, 18.

In Schottland suchen die Fabrikanten dem Schulbesuch unterworfen Kinder möglichst auszuschließen.

„Dies genügt, um die große Mißgunst der Fabrikanten gegen die Erziehungsklauseln zu beweisen.“¹⁴⁰

¹⁴⁰ Sir J. Kincaid [in] „Rep. Insp. Fact. 31st Oct. 1856“, p. 66.

Grotesk-entsetzlich erscheint dies in den Kattun- usw. Druckereien, die durch ein eigenes Fabrikgesetz geregelt sind. Nach den Bestimmungen des Gesetzes

„muß jedes Kind, bevor es in einer solchen Druckerei beschäftigt wird, Schule besucht haben für mindestens 30 Tage und nicht weniger als 150 Stunden während der 6 Monate, die dem ersten Tag seiner Beschäftigung unmittelbar vorhergehen. Während der Fortdauer seiner Beschäftigung in der Druckerei muß es Schule besuchen ebenfalls für eine Periode von 30 Tagen und 150 Stunden während jeder Wechselperiode von 6 Monaten ... Der Schulbesuch muß zwischen 8 Uhr morgens und 6 Uhr nachmittags stattfinden. Kein Besuch von weniger als 2 1/2 oder mehr als 5 Stunden an demselben Tag soll als Teil der 150 Stunden gezählt werden. Unter gewöhnlichen Umständen besuchen die Kinder die Schule vormittags und nachmittags für 30 Tage, 5 Stunden per Tag, und nach Ablauf der 30 Tage, wenn die statutenmäßige Gesamtsumme von 150 Stunden erreicht ist, wenn sie, in ihrer eignen Sprache zu reden, ihr Buch abgemacht haben, kehren sie zur Druckerei zurück, wo sie wieder 6 Monate bleiben, bis ein anderer Abschlagstermin des Schulbesuchs fällig wird, und dann bleiben sie wieder in der Schule, bis das Buch wieder abgemacht ist ... Sehr viele Jungen, welche die Schule während der vorschrittmäßigen 150 Stunden besuchen, sind bei ihrer Rückkehr aus dem sechsmonatlichen

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their previous school attendance ... In other print works the children's attendance at school is made to depend altogether upon the exigencies of the work in the establishment. The requisite number of hours is made up each six months, by instalments consisting of from 3 to 5 hours at a time, spreading over, perhaps, the whole six months ... For instance, the attendance on one day might be from 8 to 11 a.m., on another day from 1 p.m. to 4 p.m., and the child might not appear at school again for several days, when it would attend from 3 p.m. to 6 p.m.; then it might attend for 3 or 4 days consecutively, or for a week, then it would not appear in school for 3 weeks or a month, after that upon some odd days at some odd hours when the operative who employed it chose to spare it; and thus the child was, as it were, buffeted from school to work, from work to school, until the tale of 150 hours was told."¹⁴¹

Aufenthalt in der Druckerei gradeso weit wie im Anfang ... Sie haben natürlich alles wieder verloren, was sie durch den früheren Schulbesuch gewonnen hatten. In anderen Kattundruckereien wird der Schulbesuch ganz und gar abhängig gemacht von den Geschäftsbedürfnissen der Fabrik. Die erforderliche Stundenzahl wird vollgemacht während jeder sechsmonatlichen Periode durch Abschlagszahlungen von 3 bis 5 Stunden auf einmal, die vielleicht über 6 Monate zerstreut sind. Z.B. an einem Tage wird die Schule besucht von 8 bis 11 Uhr morgens, an einem andren Tage von 1 bis 4 Uhr nachmittags, und nachdem das Kind dann wieder für eine Reihe Tage weggeblieben, kommt es plötzlich wieder von 3 bis 6 Uhr nachmittags; dann erscheint es vielleicht für 3 oder 4 Tage hintereinander, oder für eine Woche, verschwindet dann wieder für 3 Wochen oder einen ganzen Monat und kehrt zurück an einigen Abfallstagen für einige Sparstunden, wenn seine Anwender seiner zufällig nicht bedürfen; und so wird das Kind sozusagen hin und her gepufft (buffeted) von der Schule in die Fabrik, von der Fabrik in die Schule, bis die Summe der 150 Stunden abgezählt ist."¹⁴¹

¹⁴¹ A. Redgrave in "Rep. of Insp. of Fact., 31st. Oct., 1857," pp. 41–42. In those industries where the Factory Act proper (not the Print Works Act referred to in the text) has been in force for some time, the obstacles in the way of the education clauses have, in recent years, been overcome. In industries not under the Act, the views of Mr. J. Geddes, a glass manufacturer, still extensively prevail. He informed Mr. White, one of the Inquiry Commissioners: "As far as I can see, the greater amount of education which a part of the working-class has enjoyed for some years past is an evil. It is dangerous, because it makes them independent." ("Children's Empl. Comm., Fourth Report," Lond., 1865, p. 253.)

¹⁴¹ A. Redgrave in „Reports of Insp. of Fact. for 31st Oct. 1857“, p. 41–43. In den englischen Industriezweigen, wo der eigentliche Fabrikakt (nicht der zuletzt im Text angeführte Print Work's Act) seit längerer Zeit herrscht, sind die Hindernisse gegen die Erziehungsklauseln in den letzten Jahren einigermaßen überwältigt worden. In den nicht dem Farbrückgesetz unterworfenen Industrien herrschen noch sehr die Ansichten des Glasfabrikanten J. Geddes, der den Untersuchungskommissär White dahin belehrt: „Soviel ich sehn kann, ist das größte Quantum Erziehung, welches ein Teil der Arbeiterklasse seit den letzten Jahren genoß, vom Übel. Es ist gefährlich, indem es sie zu unabhängig macht.“ „Children's Empl. Commission, IV. Report“, London 1865, p. 253.)

↓ (5) Marx concludes with an important side effect of these moral outrages: the resistance of the male worker is broken.

405:3 By the excessive addition of women and children to the ranks of the workers, machinery at last breaks down the resistance which the male operatives in the manufacturing period continued to oppose to the

424:1 Durch den überwiegenden Zusatz von Kindern und Weibern zum kombinierten Arbeitspersonal bricht die Maschinerie endlich den Widerstand, den der männliche Arbeiter in der Manufaktur der Despotie des

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despotism of capital.¹⁴²

¹⁴² “Mr. E., a manufacturer ... informed me that he employed females exclusively at his power-looms ... gives a decided preference to married females, especially those who have families at home dependent on them for support; they are attentive, docile, more so than unmarried females, and are compelled to use their utmost exertions to procure the necessities of life. Thus are the virtues, the peculiar virtues of the female character to be perverted to her injury—thus all that is most dutiful and tender in her nature is made a means of her bondage and suffering.” (Ten Hours’ Factory Bill. The Speech of Lord Ashley, March 15th, Lond., 1844, p. 20.)

Kapitals noch entgegengesetzte.¹⁴²

¹⁴² „Herr E., ein Fabrikant, unterrichtete mich, daß er ausschließlich Weiber bei seinen mechanischen Webstühlen beschäftigt; er gebe verheirateten Weibern den Vorzug, besonders solchen mit Familie zu Hause, die von ihnen für den Unterhalt abhängt; sie sind viel aufmerksamer und gelehriger als unverheiratete und zur äußersten Anstrengung ihrer Kräfte gezwungen, um die notwendigen Lebensmittel beizuschaffen. So werden die Tugenden, die eigentümlichen Tugenden des weiblichen Charakters, zu seinem Schaden verkehrt—so wird alles Sittliche und Zarte ihrer Natur zum Mittel ihrer Sklaverei und ihres Leidens gemacht.“ „Ten Hours’ Factory Bill. The Speech of Lord Ashley, 15th March“, London 1844, p. 20.)

Question 1009 *What effects did the employment of women and children have on the value of labor-power, the nature of the contract between capitalists and laborer, public health, the intellectual development of the working class, and its powers to resist the onslaughts of the capitalists?*

15.3.b. Prolongation of the Working-Day.

There is again a paradoxical effect, as in (15.3.a). Machinery, while increasing productiveness of labor (and thus shortening the time to produce use-values) produces under capitalism the most powerful means to prolong the working-day. This is a different effect than that in (15.3.a). In (15.3.a), the labor-savings referred to the decreased input of labor, while now we speak of the increased output of the product.

If machinery be the most powerful means for increasing the productiveness of labor—i.e., for shortening the working-time required in the production of a commodity, it becomes in the hands of capital the most powerful means, in those industries first invaded by it, for lengthening the working-day beyond all bounds set by human nature. It creates, on the one hand, new conditions by which capital is enabled to give free scope to this its constant tendency, and on the other hand, new motives with which to whet capital’s appetite for the labor of others.

425:1 Wenn die Maschinerie das gewaltigste Mittel ist, die Produktivität der Arbeit zu steigern, d.h. die zur Produktion einer Ware nötige Arbeitszeit zu verkürzen, wird sie als Träger des Kapitals zunächst in den unmittelbar von ihr ergriffenen Industrien zum gewaltigsten Mittel, den Arbeitstag über jede naturgemäße Schranke hinaus zu verlängern. Sie schafft einerseits neue Bedingungen, welche das Kapital befähigen, dieser seiner beständigen Tendenz die Zügel frei schießen zu lassen, andererseits neue Motive zur Wetzung seines Heißhunger nach fremder Arbeit.

↑ Machinery creates both new motives for capital and the conditions which enable it to prolong the working-day.

↓ Description of the new *motives*. (1) Machines want to be kept in motion perpetually.

406:2 In the first place, in the form of machinery, the implements of labor become au-

425:2 Zunächst verselbständigt sich in der Maschinerie die Bewegung und Werkstätigkeit.

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tomatic, things moving and working independent of the workman. They are thenceforth an industrial *perpetuum mobile*, that would go on producing forever, did it not meet with certain natural obstructions in the weak bodies and the strong wills of its human attendants. The automaton, as capital, and because it is capital, is endowed, in the person of the capitalist, with intelligence and will; it is therefore animated by the longing to reduce to a minimum the resistance offered by that repellent yet elastic natural barrier, man.¹⁴³

¹⁴³ "Since the general introduction of machinery, human nature has been forced far beyond its average strength." (Rob. Owen: "Observations on the Effects of the Manufacturing System," 2nd Ed., London, 1817.)

This resistance is moreover lessened by the apparent lightness of machine work, and by the more pliant and docile character of the women and children employed on it.¹⁴⁴

↓ Interesting philosophical critique of the "English" way of thinking:

¹⁴⁴ The English, who have a tendency to look upon the earliest form of appearance of a thing as the cause of its existence, are in the habit of attributing the long hours of work in factories to the extensive kidnapping of children, practised by capitalists in the infancy of the factory system, on workhouses and orphanages, by means of which robbery, unresisting material for exploitation was procured. Thus, for instance, Ficiden, himself a manufacturer, says: "It is evident that the long hours of work were brought about by the circumstance of so great a number of destitute children being supplied from different parts of the country, that the masters were independent of the hands, and that having once established the custom by means of the miserable materials they had procured in this way, they could impose it on their neighbours with the greater facility." (J. Ficiden: "The Curse of the Factory System," Lond., 1836, p. I 1.) With reference to the labor of women, Saunders, the factory inspector, says in his report of 1844: "Amongst the female operatives there are some women who, for many weeks in succession, except for a few days, are employed from 6 a.m. till midnight, with less than 2 hours for meals, so that on 5 days of the

keit des Arbeitsmittels gegenüber dem Arbeiter. Es wird an und für sich ein industrielles Perpetuum mobile, das ununterbrochen fortproduzieren würde, stieße es nicht auf gewisse Naturschranken in seinen menschlichen Gehilfen: ihre Körperschwäche und ihren Eigenwillen. Als Kapital, und als solches besitzt der Automat im Kapitalisten Bewußtsein und Willen, ist es daher mit dem Trieb begeistert, die widerstrebende, aber elastische menschliche Naturschranke auf den Minimalwiderstand einzuzwängen.¹⁴³

¹⁴³ „Seit der allgemeinen Einführung von kostspieligen Maschinen ist die menschliche Natur weit über ihre durchschnittliche Kraft beansprucht worden.“ (Robert Owen, „Observations on the effects of the manufacturing system“, 2nd ed., London 1817, [p. 16].)

Dieser ist ohnehin vermindert durch die scheinbare Leichtigkeit der Arbeit an der Maschine und das füg- und biegsamere Weiber- und Kinderelement.¹⁴⁴

¹⁴⁴ Die Engländer, die gern die erste empirische Erscheinungsform einer Sache als ihren Grund betrachten, geben oft den großen herodischen Kinderraub, den das Kapital in den Anfängen des Fabriksystems an den Armen- und Waisenhäusern verübte und wodurch es sich ein ganz willenloses Menschenmaterial einverleibte, als Grund der langen Arbeitszeit in den Fabriken an. So z.B. Fielden, selbst englischer Fabrikant: „Es ist klar, daß die lange Arbeitszeit durch den Umstand herbeigeführt wurde, daß man eine so große Anzahl verlassener Kinder aus verschiedenen Teilen des Landes bekommen hat, so daß die Fabrikherren von den Arbeitern unabhängig waren und sie, nachdem sie erst einmal mit Hilfe des auf diese Weise aufgetriebenen armseligen Menschenmaterials die lange Arbeitszeit zur Gewohnheit gemacht hatten, diese auch ihren Nachbarn leichter aufzwingen konnten.“ (J. Fielden, „The Curse of the Factory System“, Lond. 1836, p. 11.) Mit Bezug auf Weiberarbeit sagt Fabrikinspektor Saunders im Fabrikbericht von 1844: „Unter den Arbeiterinnen gibt es Frauen, die hintereinander für viele Wochen, mit Ausfall nur weniger Tage, von 6 Uhr morgens bis 12 Uhr nachts beschäftigt werden, mit weniger als

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week they have only 6 hours left out of the 24, for going to and from their homes and resting in bed.”

2 Stunden für Mahlzeiten, so daß ihnen für 5 Tage in der Woche von den 24 Tagesstunden nur 6 bleiben, um von und nach Haus zu gehn und im Bett auszuruhen.“

(2) The investment into machines wants to be recovered as quickly as possible.

407:1 The productiveness of machinery is, as we saw, inversely proportional to the value transferred by it to the product. The longer the life of the machine, the greater is the mass of the products over which the value transmitted by the machine is spread, and the less is the portion of that value added to each single commodity. The active life-time of a machine is, however, clearly dependent on the length of the working-day, or on the duration of the daily labor-process multiplied by the number of days for which the process is carried on.

426:1 Die Produktivität der Maschinerie steht, wie wir sahen, in umgekehrtem Verhältnis zur Größe des von ihr auf das Machwerk übertragenen Wertbestandteils. Je länger die Periode, worin sie funktioniert, desto größer die Produktenmasse, worüber sich der von ihr zugesetzte Wert verteilt, und desto kleiner der Wertteil, den sie der einzelnen Ware zufügt. Die aktive Lebensperiode der Maschinerie ist aber offenbar bestimmt durch die Länge des Arbeitstags oder die Dauer des täglichen Arbeitsprozesses, multipliziert mit der Anzahl Tage, worin er sich wiederholt.

407:2 The wear and tear of a machine is not exactly proportional to its working-time. And even if it were so, a machine working 16 hours daily for 7 1/2 years, covers as long a working period as, and transmits to the total product no more value than, the same machine would if it worked only 8 hours daily for 15 years. But in the first case the value of the machine would be reproduced twice as quickly as in the latter, and the capitalist would, by this use of the machine, absorb in 7 1/2 years as much surplus-value as in the second case he would in 15.

426:2 Der Maschinenverschleiß entspricht keineswegs exakt mathematisch ihrer Benutzungszeit. Und selbst dies vorausgesetzt, umfaßt eine Maschine, die während 7 1/2 Jahren täglich 16 Stunden dient, eine ebenso große Produktionsperiode und setzt dem Gesamtprodukt nicht mehr Wert zu als dieselbe Maschine, die während 15 Jahren nur 8 Stunden täglich dient. Im erstren Fall aber wäre der Maschinenwert doppelt so rasch reproduziert als im letzteren und der Kapitalist hätte vermittelst derselben in 7 1/2 Jahren so viel Mehrarbeit eingeschluckt als sonst in 15.

(3) Danger of obsolescence requires quick utilization of the machinery.

407:3 The material wear and tear of a machine is of two kinds. The one arises from use, as coins wear away by circulating, the other from non-use, as a sword rusts when left in its scabbard. The latter kind is due to the elements. The former is more or less directly proportional, the latter to a certain extent inversely proportional, to the use of the machine.¹⁴⁵

426:3 Der materielle Verschleiß der Maschine ist doppelt. Der eine entspringt aus ihrem Gebrauch, wie Geldstücke durch Zirkulation verschleifen, der andre aus ihrem Nichtgebrauch, wie ein untätig Schwert in der Scheide verrostet. Es ist dies ihr Verzehr durch die Elemente. Der Verschleiß erster Art steht mehr oder minder in direktem Verhältnis, der letztere zu gewissem Grad in umgekehrtem Verhältnis zu ihrem Gebrauch.¹⁴⁵

¹⁴⁵ “Occasion . . . injury to the delicate moving parts of metallic mechanism by inaction.” (Ure, l.c., p. 281.)

¹⁴⁵ „Der Anlaß . . . zur Schädigung der empfindlichen beweglichen Teile des metallenen Mechanismus kann im Stillstand liegen.“ (Ure, l.c.)

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407:4/o But in addition to the material wear and tear, a machine also undergoes, what we may call a moral depreciation. It loses exchange-value, either by machines of the same sort being produced cheaper than it, or by better machines entering into competition with it.¹⁴⁶ In both cases, be the machine ever so young and full of life, its value is no longer determined by the labor actually materialised in it, but by the labor-time requisite to reproduce either it or the better machine. It has, therefore, lost value more or less. The shorter the period taken to reproduce its total value, the less is the danger of moral depreciation; and the longer the working-day, the shorter is that period. When machinery is first introduced into an industry, new methods of reproducing it more cheaply follow blow upon blow,¹⁴⁷ and so do improvements, that not only affect individual parts and details of the machine, but its entire build. It is, therefore, in the early days of the life of machinery that this special incentive to the prolongation of the working-day makes itself felt most acutely.¹⁴⁸

¹⁴⁶ The Manchester Spinner (*Times*, 26th Nov., 1862) before referred to says in relation to this subject: "It (namely, the "allowance for deterioration of machinery") is also intended to cover the loss which is constantly arising from the superseding of machines before they are worn out, by others of a new and better construction."

¹⁴⁷ "It has been estimated, roughly, that the first individual of a newly-invented machine will cost about five times as much as the construction of the second." (Babbage, l.c., p. 349.)

¹⁴⁸ "The improvements which took place not long ago in frames for making patent net were so great that a machine in good repair which had cost £1,200, sold a few years after for £60 ... improvements succeeded each other so rapidly,

p. 281.)

426:4/o Neben dem materiellen unterliegt die Maschine aber auch einem sogenannten moralischen Verschleiß. Sie verliert Tauschwert im Maße, worin entweder Maschinen derselben Konstruktion wohlfeiler reproduziert werden können oder bessere Maschinen konkurrierend neben sie treten.¹⁴⁶ In beiden Fällen ist ihr Wert, so jung und lebenskräftig sie sonst noch sein mag, nicht mehr bestimmt durch die tatsächlich in ihr selbst vergegenständlichte, sondern durch die zu ihrer eignen Reproduktion oder zur Reproduktion der besseren Maschine notwendige Arbeitszeit. Sie ist daher mehr oder minder entwertet. Je kürzer die Periode, worin ihr Gesamtwert reproduziert wird, desto geringer die Gefahr des moralischen Verschleißes, und je länger der Arbeitstag, um so kürzer jene Periode. Bei der ersten Einführung der Maschinerie in irgendeinen Produktionszweig folgen Schlag auf Schlag neue Methoden zu ihrer wohlfeilern Reproduktion¹⁴⁷ und Verbesserungen, die nicht nur einzelne Teile oder Apparate, sondern ihre ganze Konstruktion ergreifen. In ihrer ersten Lebensperiode wirkt daher dies besondere Motiv zur Verlängerung des Arbeitstags am akutesten.¹⁴⁸

¹⁴⁶ Der schon früher erwähnte „Manchester Spinner“ (*„Times“*, 26. Nov. 1862) zählt unter den Kosten der Maschinerie auf: „Er“ (nämlich der „Abzug für Verschleiß der Maschinerie“) „hat auch den Zweck, den Verlust zu decken, der fortgesetzt dadurch entsteht, daß Maschinen, bevor sie verschlissen sind, durch andre von neuer und besserer Konstruktion außer Gebrauch gesetzt werden.“

¹⁴⁷ „Man schätzt im großen, daß eine einzige Maschine nach einem neuen Modell zu konstruieren fünfmal soviel kostet als die Rekonstruktion derselben Maschine nach demselben Modell.“ (Babbage, l.c. p. 211, 212.)

¹⁴⁸ „Seit einigen Jahren sind so bedeutende und zahlreiche Verbesserungen in der Tüllfabrikation gemacht worden, daß eine gut erhaltene Maschine zum ursprünglichen Kostenpreis von 1200 Pfd.St. einige Jahre später zu 60 Pfd.St. ver-

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that machines which had never been finished were abandoned in the hands of their makers, because new improvements had superseded their utility.” (Babbage, l. c., p. 233.) In these stormy, go-ahead times, therefore, the textile manufacturers soon extended the working-day, by means of double sets of hands, from the original 8 hours to 24.

kaufte wurde ... Die Verbesserungen folgten sich mit solcher Geschwindigkeit, daß Maschinen unvollendet in der Hand ihrer Bauer blieben, weil sie durch glücklichere Erfindungen bereits veraltet waren.“ In dieser Sturm- und Drangperiode dehnten daher die Tüllfabrikanten bald die ursprüngliche Arbeitszeit von 8 Stunden mit doppelter Mannschaft auf 24 Stunden aus. (l.c. p. 233.)

(4) A longer workday requires diminished fixed capital outlay per product:

408:1/o Given the length of the working-day, all other circumstances remaining the same, the exploitation of double the number of workmen demands, not only a doubling of that part of constant capital which is invested in machinery and buildings, but also of that part which is laid out in raw material and auxiliary substances. The lengthening of the working-day, on the other hand, allows of production on an extended scale without any alteration in the amount of capital laid out on machinery and buildings.¹⁴⁹ Not only is there, therefore, an increase of surplus-value, but the outlay necessary to obtain it diminishes. It is true that this takes place, more or less, with every lengthening of the working-day; but in the case under consideration, the change is more marked, because the capital converted into the instruments of labor preponderates to a greater degree.¹⁵⁰ The development of the factory system fixes a constantly increasing portion of the capital in a form, in which, on the one hand, its value is capable of continual self-expansion, and in which, on the other hand, it loses both use-value and exchange-value whenever it loses contact with living labor.

427:1–428:2 Unter sonst gleichbleibenden Umständen und bei gegebenem Arbeitstag erheischt Exploitation verdoppelter Arbeiteranzahl ebensoviel Verdopplung des in Maschinerie und Baulichkeiten ausgelegten Teils des konstanten Kapitals als des in Rohmaterial, Hilfsstoffen usw. ausgelegten. Mit verlängertem Arbeitstag dehnt sich die Stufenleiter der Produktion, während der in Maschinerie und Baulichkeiten ausgelegte Kapitalteil unverändert bleibt.¹⁴⁹ Nicht nur der Mehrwert wächst daher, sondern die zur Ausbeutung desselben notwendigen Auslagen nehmen ab. Zwar findet dies auch sonst mehr oder minder bei aller Verlängerung des Arbeitstags statt, fällt aber hier entscheidender ins Gewicht, weil der in Arbeitsmittel verwandelte Kapitalteil überhaupt mehr ins Gewicht fällt.¹⁵⁰ Die Entwicklung des Maschinenbetriebs bindet nämlich einen stets wachsenden Bestandteil des Kapitals in eine Form, worin es einerseits fortwährend verwertbar ist, andererseits Gebrauchswert und Tauschwert verliert, sobald sein Kontakt mit der lebendigen Arbeit unterbrochen wird. „Wenn“, belehrte Herr Ashworth, ein englischer Baumwollmagnat, den Professor Nassau W. Senior,

“When a laborer,” said Mr. Ashworth, a cotton magnate, to Professor Nassau W. Senior, “lays down his spade, he renders useless, for that period, a capital worth eighteen-pence. When one of our people leaves the mill, he renders useless a capital that has cost £100,000.”¹⁵¹

Only fancy! making “useless” for a single moment, a capital that has cost £100,000! It is, in truth, monstrous, that a single one of our people should ever leave the factory!

„wenn ein Ackersmann seinen Spaten niederlegt, macht er für diese Periode ein Kapital von 18 d. nutzlos. Wenn einer von unsren Leuten“ (d.h. den Fabrikarbeitern) „die Fabrik verläßt, macht er ein Kapital nutzlos, das 100 000 Pfd.St. gekostet hat.“¹⁵¹

Man denke nur! Ein Kapital, das 100 000 Pfd.St. gekostet hat, auch nur für einen Augenblick „nutzlos“ zu machen! Es ist in der Tat himmelschreiend, daß einer unsrer Leu-

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The increased use of machinery, as Senior after the instruction he received from Ashworth clearly perceives, makes a constantly increasing lengthening of the working-day “desirable.”¹⁵²

¹⁴⁹ “It is self-evident, that, amid the ebbings and flowings of the markets and the alternate expansions and contractions of demand, occasions will constantly recur, in which the manufacturer may employ additional floating capital without employing additional fixed capital ... if additional quantities of raw material can be worked up without incurring an additional expense for buildings and machinery.” (R. Torrens: “On Wages and Combination.” London, 1834, p. 64.)

¹⁵⁰ This circumstance is mentioned only for the sake of completeness, for I shall not consider the rate of profit, i.e., the ratio of the surplus-value to the total capital advanced, until I come to the third book.

¹⁵¹ Senior, “Letters on the Factory Act.” London, 1837, pp. 13, 14.

Senior’s original says 100 £ instead of 100 000 £.

¹⁵² “The great proportion of fixed to circulating capital ... makes long hours of work desirable.” With the increased use of machinery, etc., “the motives to long hours of work will become greater, as the only means by which a large proportion of fixed capital can be made profitable.” (l.c., pp. 11–13.) “There are certain expenses upon a mill which go on in the same proportion whether the mill be running short or full time, as, for instance, rent rates, and taxes, insurance against fire, wages of several permanent servants, deterioration of machinery, with various other charges upon a manufacturing establishment, the proportion of which to profits increases as the production decreases.” (“Rep. of Insp. of Fact. for 31st Oct., 1862,” p. 19.)

te überhaupt jemals die Fabrik verläßt! Der wachsende Umfang der Maschinerie macht, wie der von Ashworth belehrte Senior ein- sieht, eine stets wachsende Verlängerung des Arbeitstags „wünschenswert“.¹⁵²

¹⁴⁹ „Es ist selbstverständlich, daß mit der Eb- be und Flut des Marktes und dem abwechselnden Wachsen und Schrumpfen der Nachfrage die Gelegenheiten ständig wiederkehren werden, wo der Fabrikant zusätzliches zirkulierendes Kapi- tal anwenden kann, ohne zusätzliches fixes Ka- pital zu verwenden ... wenn zusätzliche Men- gen an Rohmaterial ohne zusätzliche Ausgaben für Gebäude und Maschinerie verarbeitet werden können.“ (R. Torrens, „On Wages and Combina- tion“, Lond. 1834, p. 64.)

¹⁵⁰ Der im Text erwähnte Umstand ist nur der Vollständigkeit wegen erwähnt, da ich erst im Dritten Buch die Profitrate, d.h. das Verhältnis des Mehrwerts zum vorgeschossenen Gesamtkapi- tal, behandle.

¹⁵¹ „When a labourer“, said Mr. Ashworth, „lays down his spade, he renders useless, for that period, a capital worth 18 d. When one of our people leaves the mill, he renders useless a capi- tal that has cost 100 000 pounds.“ (Senior, „Let- ters on the Factory Act“, Lond. 1837, p. 14.)

¹⁵² „Das große Übergewicht des fixen im Ver- hältnis zum zirkulierenden Kapital ... macht lan- ge Arbeitszeit wünschenswert.“ Mit dem wach- senden Umfang der Maschinerie usw. „wird der Antrieb zur Verlängerung der Arbeitszeit stärker, da dies das einzige Mittel ist, eine große Mas- se fixen Kapitals profitabel zu machen“. (l.c. p. 11–14.) Es gibt verschiedene Auslagen bei ei- ner Fabrik, welche konstant bleiben, ob die Fa- brik mehr oder weniger Zeit arbeite, z.B. Ren- te für die Baulichkeiten, lokale und allgemeine Steuern, Feuerversicherung, Arbeitslohn für ver- schiedene permanente Arbeiter. Verschlechterung der Maschinerie nebst verschiedenen andern La- sten, deren Proportion zum Profit im selben Ver- hältnis abnimmt, wie der Umfang der Produktion zunimmt.“ („Reports of the Insp. of Fact. for 31st Oct. 1862“, p. 19.)

(5) Here is another reason why machinery prolongs the labor day: The capitalist has to hurry to take advantage of transitory extra surplus-value.

409:1 Machinery produces relative surplus- value; not only by directly depreciating the value of labor-power, and by indirectly

428:3/o Die Maschine produziert relati- ven Mehrwert, nicht nur, indem sie die Ar- beitskraft direkt entwertet und dieselbe indi-

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cheapening the same through cheapening the commodities that enter into its reproduction, but also, when it is first introduced sporadically into an industry, by converting the labor employed by the owner of that machinery, into labor of a higher degree and greater efficacy, by raising the social value of the article produced above its individual value, and thus enabling the capitalist to replace the value of a day's labor-power by a smaller portion of the value of a day's product.

rekt durch Verwohlfeilerung der in ihre Reproduktion eingehenden Waren verwohlfeilert, sondern auch, indem sie bei ihrer ersten sporadischen Einführung die vom Maschinenbesitzer verwandte Arbeit in potenzierte Arbeit verwandelt, den gesellschaftlichen Wert des Maschinenprodukts über seinen individuellen Wert erhöht und den Kapitalisten so befähigt, mit geringem Wertteil des Tagesprodukts den Tageswert der Arbeitskraft zu ersetzen.

Wertteil des Tagesprodukts = Teil des Wertes des Tagesprodukts.

↑ This is a summary of what Marx already says in chapter Twelve in 323:1/o.

↓ Footnote 3a to 323:1/o is a good illustration how the capitalist can replace the daily value of the labor-power with a smaller part of the value of the daily product.

During this transition period, when the use of machinery is a sort of monopoly, the profits are therefore exceptional, and the capitalist endeavours to exploit thoroughly "the sunny time of this his first love," by prolonging the working-day as much as possible. The magnitude of the profit whets his appetite for more profit.

Während dieser Übergangsperiode, worin der Maschinenbetrieb eine Art Monopol bleibt, sind daher die Gewinne außerordentlich, und der Kapitalist sucht diese „erste Zeit der jungen Liebe“ gründlichst auszunutzen durch möglichste Verlängerung des Arbeitstags. Die Größe des Gewinns wetzt den Heißhunger nach mehr Gewinn.

(6) However the mechanism generating this additional motive fizzles out again, and the dominant tendency of machinery is to lower the rate of profits, instead of raising it. This fall in the rate of profits is another reason to lengthen the workday.

409:2/o As the use of machinery becomes more general in a particular industry, the social value of the product sinks down to its individual value, and the law that surplus-value does not arise from the labor-power that has been replaced by the machinery, but from the labor-power actually employed in working with the machinery, asserts itself. Surplus-value arises from variable capital alone, and we saw that the amount of surplus-value depends on two factors, viz., the rate of surplus-value and the number of the workmen simultaneously employed. Given the length of the working-day, the rate of surplus-value is determined by the relative duration of the necessary labor and of the surplus-labor in a day. The number of the laborers simultaneously employed depends, on its side, on the ratio of the vari-

429:1/o Mit der Verallgemeinerung der Maschinerie im selben Produktionszweig sinkt der gesellschaftliche Wert des Maschinenprodukts auf seinen individuellen Wert und macht sich das Gesetz geltend, daß der Mehrwert nicht aus den Arbeitskräften entspringt, welche der Kapitalist durch die Maschine ersetzt hat, sondern umgekehrt aus den Arbeitskräften, welche er an ihr beschäftigt. Der Mehrwert entspringt nur aus dem variablen Teil des Kapitals, und wir sahen, daß die Masse des Mehrwerts durch zwei Faktoren bestimmt ist, die Rate des Mehrwerts und die Anzahl der gleichzeitig beschäftigten Arbeiter. Bei gegebener Länge des Arbeitstags wird die Rate des Mehrwerts bestimmt durch das Verhältnis, worin der Arbeitstag in notwendige Arbeit und Mehrarbeit zerfällt. Die Anzahl der

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able to the constant capital. Now, however much the use of machinery may increase the surplus-labor at the expense of the necessary labor by heightening the productiveness of labor, it is clear that it attains this result, only by diminishing the number of workmen employed by a given amount of capital. It converts what was formerly variable capital, invested in labor-power, into machinery which, being constant capital, does not produce surplus-value. It is impossible, for instance, to squeeze as much surplus-value out of 2 as out of 24 laborers. If each of these 24 men gives only one hour of surplus-labor in 12, the 24 men give together 24 hours of surplus-labor, while 24 hours is the total labor of the two men. Hence, the application of machinery to the production of surplus-value implies a contradiction which is immanent in it, since of the two factors of the surplus-value created by a given amount of capital, one, the rate of surplus-value, cannot be increased, except by diminishing the other, the number of workmen. This contradiction comes to light, as soon as by the general employment of machinery in a given industry, the value of the machine-produced commodity regulates the value of all commodities of the same sort; and it is this contradiction, that in its turn, drives the capitalist, without his being conscious of the fact,¹⁵³ to excessive lengthening of the working-day, in order that he may compensate the decrease in the relative number of laborers exploited, by an increase not only of the relative, but of the absolute surplus-labor.

¹⁵³ Why it is, that the capitalist, and also the political economists who are imbued with his views, are unconscious of this immanent contradiction, will appear from the first part of the third book.

gleichzeitig beschäftigten Arbeiter hängt ihrerseits ab von dem Verhältnis des variablen Kapitalteils zum konstanten. Es ist nun klar, daß der Maschinenbetrieb, wie er immer durch Steigerung der Produktivkraft der Arbeit die Mehrarbeit auf Kosten der notwendigen Arbeit ausdehne, dies Resultat nur hervorbringt, indem er die Anzahl der von einem gegebenen Kapital beschäftigten Arbeiter vermindert. Er verwandelt einen Teil des Kapitals, der früher variabel war, d.h. sich in lebendige Arbeitskraft umsetzte, in Maschinerie, also in konstantes Kapital, das keinen Mehrwert produziert. Es ist unmöglich, z.B. aus zwei Arbeitern so viel Mehrwert auszupressen als aus 24. Wenn jeder der 24 Arbeiter auf 12 Stunden nur eine Stunde Mehrarbeit liefert, liefern sie zusammen 24 Stunden Mehrarbeit, während die Gesamtarbeit der zwei Arbeiter nur 24 Stunden beträgt. Es liegt also in der Anwendung der Maschinerie zur Produktion von Mehrwert ein immanenter Widerspruch, indem sie von den beiden Faktoren des Mehrwerts, den ein Kapital von gegebener Größe liefert, den einen Faktor, die Rate des Mehrwerts, nur dadurch vergrößert, daß sie den andren Faktor, die Arbeiterzahl, verkleinert. Dieser immanente Widerspruch tritt hervor, sobald mit der Verallgemeinerung der Maschinerie in einem Industriezweig der Wert der maschinenmäßig produzierten Ware zum regelnden gesellschaftlichen Wert aller Waren derselben Art wird, und es ist dieser Widerspruch, der wiederum das Kapital, ohne daß es sich dessen bewußt wäre,¹⁵³ zur gewaltsamsten Verlängerung des Arbeitstags treibt, um die Abnahme in der verhältnismäßigen Anzahl der exploitierten Arbeiter durch Zunahme nicht nur der relativen, sondern auch absoluten Mehrarbeit zu kompensieren.

¹⁵³ Warum dieser immanente Widerspruch dem einzelnen Kapitalisten und daher auch der in seinen Anschauungen befangenen politischen Ökonomie nicht zum Bewußtsein kommt, wird man aus den ersten Abschnitten des Dritten Buchs ersehen.

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Question 1010 Give the several reasons why machinery makes it desirable for capital to prolong the working-day and introduce shiftwork. One of the reasons is the immanent contradiction in the application of machinery to the production of surplus-value. Explain.

Machinery also creates the conditions enabling capital to pursue these motives because of overpopulation in two ways: a) increase of employable workforce, b) displacement of existing laborers by machinery.

410:1/oo If, then, the capitalistic employment of machinery, on the one hand, supplies new and powerful motives to an excessive lengthening of the working-day, and radically changes, as well the methods of labor, as also the character of the social working organism, in such a manner as to break down all opposition to this tendency, on the other hand it produces, partly by opening out to the capitalist new strata of the working-class, previously inaccessible to him, partly by setting free the laborers it supplants, a surplus working population,¹⁵⁴ which is compelled to submit to the dictation of capital. Hence that remarkable phenomenon in the history of Modern Industry, that machinery sweeps away every moral and natural restriction on the length of the working-day. Hence, too, the economic paradox, that the most powerful instrument for shortening labor-time, becomes the most unfailing means for placing every moment of the laborer's time and that of his family, at the disposal of the capitalist for the purpose of expanding the value of his capital.

¹⁵⁴ It is one of the great merits of Ricardo to have seen in machinery not only the means of producing commodities, but of creating a "redundant population."

At the end, this capitalist reality is contrasted with the potential of machines already envisioned by Aristotle:

"If," dreamed Aristotle, the greatest thinker of antiquity,

"if every tool, when summoned, or even of its own accord, could do the work that befits it, just as the creations of Daedalus moved of themselves, or the tripods of Hephaestus went of their own accord to their sacred work, if the weavers' shuttles were to weave of themselves, then there would be no need either of apprentices for the master workers, or of slaves for the lords."¹⁵⁵

430:1–431:0 Wenn also die kapitalistische Anwendung der Maschinerie einerseits neue mächtige Motive zur maßlosen Verlängerung des Arbeitstags schafft und die Arbeitsweise selbst wie den Charakter des gesellschaftlichen Arbeitskörpers in einer Art umwälzt, die den Widerstand gegen diese Tendenz bricht, produziert sie andererseits, teils durch Einstellung dem Kapital früher unzugänglicher Schichten der Arbeiterklasse, teils durch Freisetzung der von der Maschine verdrängten Arbeiter, eine überflüssige Arbeiterpopulation¹⁵⁴, die sich das Gesetz vom Kapital diktieren lassen muß. Daher das merkwürdige Phänomen in der Geschichte der modernen Industrie, daß die Maschine alle sittlichen und natürlichen Schranken des Arbeitstags über den Haufen wirft. Daher das ökonomische Paradoxon, daß das gewaltigste Mittel zur Verkürzung der Arbeitszeit in das unfehlbarste Mittel umschlägt, alle Lebenszeit des Arbeiters und seiner Familie in disponible Arbeitszeit für die Verwertung des Kapitals zu verwandeln.

¹⁵⁴ Es ist eins der großen Verdienste Ricardos, die Maschinerie nicht nur als Produktionsmittel von Waren, sondern auch von „redundant population“ begriffen zu haben.

„Wenn“, träumte Aristoteles, der größte Denker des Altertums,

„wenn jedes Werkzeug auf Geheiß, oder auch voraussahnend, das ihm zukommende Werk verrichten könnte, wie des Dädalus Kunstwerke sich von selbst bewegten oder die Dreifüße des Hephästos aus eigenem Antrieb an die heilige Arbeit gingen, wenn so die Weberschiffe von selbst webten, so bedürfte es weder für den Werkmeister der Gehilfen noch für die Herrn der Sklaven.“¹⁵⁵

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¹⁵⁵ F. Biese. "Die Philosophie des Aristoteles," Vol. 2. Berlin, 1842, p. 408.

Another example is Antipatros:

And Antipatros, a Greek poet of the time of Cicero, hailed the invention of the water-wheel for grinding corn, an invention that is the elementary form of all machinery, as the giver of freedom to female slaves, and the bringer back of the golden age.¹⁵⁶

¹⁵⁶ I give below the translation of this poem by Stolberg, because it brings into relief, quite in the spirit of former quotations referring to division of labor, the antithesis between the views of the ancients and the moderns.

^{156 ctd} "Spare the hand that grinds the corn,
Oh, miller girls, and softly sleep.
Let Chanticleer announce the morn in vain!
Deo has commanded the work of the girls to
be done by the Nymphs,
and now they skip lightly over the wheels,
so that the shaken axles revolve with their
spokes
and pull round the load of the revolving
stones.
Let us live the life of our fathers, and let us
rest from work
and enjoy the gifts that the Goddess sends us."

^{156 ctd} "Gedichte aus dem Griechischen übersetzt von Christian Graf zu Stolberg", Hamburg 1782.)

Back to capitalism.

Oh! those heathens! They understood, as the learned Bastiat, and before him the still wiser MacCulloch have discovered, nothing of Political Economy and Christianity. They did not, for example, comprehend that machinery is the surest means of lengthening the working-day. They perhaps excused the slavery of one on the ground that it was a means to the full development of another. But to preach slavery of the masses, in order that a few crude and half-educated parvenus, might become "eminent spinners," "extensive sausage-makers," and "influential shoe-

¹⁵⁵ F. Biese, „Die Philosophie des Aristoteles“, Zeiter Band, Berlin 1842, p. 408.

Und Antipatros, ein griechischer Dichter aus der Zeit des Cicero, begrüßte die Erfindung der Wassermühle zum Mahlen des Getreides, diese Elementarform aller produktiven Maschinerie, als Befreierin der Sklavinnen und Herstellerin des goldenen Zeitalters!¹⁵⁶

¹⁵⁶ Ich gebe hier die Stolbergsche Übersetzung des Gedichts, weil es ganz so wie die früheren Zitate über Teilung der Arbeit den Gegensatz der antiken Anschauung zur modernen charakterisiert.

^{156 ctd} „Schonet der mahlenden Hand, o Mül-
rinnen, und schlafet
Sanft! es verkünde der Hahn euch den Morgen
umsonst!
Däo hat die Arbeit der Mädchen den Nym-
phen befohlen,
Und itzt hüpfen sie leicht über die Räder da-
hin,
Daß die erschütterten Achsen mit ihren Spei-
chen sich wälzen,
Und im Kreise die Last drehen des wälzenden
Steins.
Laßt uns Leben das Leben der Väter, und laßt
uns der Gaben
Arbeitslos uns freuen, welche die Göttin uns
schenkt.“

^{156 ctd} „Gedichte aus dem Griechischen über-
setzt von Christian Graf zu Stolberg“, Hamburg
1782.)

„Die Heiden, ja die Heiden!“ Sie begriffen, wie der gescheite Bastiat entdeckt hat, und schon vor ihm der noch klügere MacCulloch, nichts von politischer Ökonomie und Christentum. Sie begriffen u.a. nicht, daß die Maschine das probateste Mittel zur Verlängerung des Arbeitstags ist. Sie entschuldig-
ten etwa die Sklaverei des einen als Mittel zur vollen menschlichen Entwicklung des andren. Aber Sklaverei der Massen predigen, um einige rohe oder halbgebildete Parvenüs zu „eminent spinners“, „extensive sausage makers“ und „influential shoe black

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black dealers,” to do this, they lacked the bump of Christianity.

dealers“ zu machen, dazu fehlte ihnen das spezifisch christliche Organ.

↑ Interesting contrast between necessary and unnecessary slavery.

Question 1011 Compare the thought of Greek philosophers about division of labor (quoted in the last chapter, “division of labor and manufacture,”) and machinery (quoted in this chapter) with capitalistic practice.

15.3.c. Intensification of Labor

This subsection begins with an interesting nutshell-summary of chapter Ten:

412:1 The immoderate lengthening of the working-day, produced by machinery in the hands of capital, leads to a reaction on the part of society, the very sources of whose life are menaced; and, thence, to a normal working-day whose length is fixed by law.

431:1 Die maßlose Verlängerung des Arbeitstags, welche die Maschinerie in der Hand des Kapitals produziert, führt, wie wir sahen, später eine Reaktion der in ihrer Lebenswurzel bedrohten Gesellschaft herbei und damit einen gesetzlich beschränkten Normalarbeitstag.

↓ Only after the length of the working-day was limited did labor turn from an extensive to an intensive magnitude.

Thenceforth a phenomenon that we have already met with, namely, the intensification of labor, develops into great importance. Our analysis of absolute surplus-value had reference primarily to the extension or duration of the labor, its intensity being assumed as given. We now proceed to consider the substitution of a more intensified labor for labor of more extensive duration, and the degree of the former.

Auf Grundlage des letzteren entwickelt sich ein Phänomen, das uns schon früher begegnete, zu entscheidender Wichtigkeit—nämlich die Intensifikation der Arbeit. Bei der Analyse des absoluten Mehrwerts handelte es sich zunächst um die extensive Größe der Arbeit, während der Grad ihrer Intensität als gegeben vorausgesetzt war. Wir haben jetzt den Umschlag der extensiven Größe in intensive oder Gradgröße zu betrachten.

Question 1012 Discuss the dialectics between length and intensity of the working-day.

↓ As machinery progresses technologically, speed and intensity of the labor process increase.

412:2/o It is self-evident, that in proportion as the use of machinery spreads, and the experience of a special class of workmen habituated to machinery accumulates, the rapidity and intensity of labor increase as a natural consequence. Thus in England, during half a century, lengthening of the working-day went hand in hand with increasing intensity of factory labor.

431:2/oo Es ist selbstverständlich, daß mit dem Fortschritt des Maschinenwesens und der gehäuften Erfahrung einer eignen Klasse von Maschinenarbeitern die Geschwindigkeit und damit die Intensität der Arbeit naturwüchsig zunehmen. So geht in England während eines halben Jahrhunderts die Verlängerung des Arbeitstags Hand in Hand mit der wachsenden Intensität der Fabrikarbeit.

↓ However the intensification of labor has its limits.

Nevertheless the reader will clearly see, that where we have labor, not carried on by fits

Indes begreift man, daß bei einer Arbeit, wo es sich nicht um vorübergehende Par-

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and starts, but repeated day after day with unvarying uniformity, a nodal point must inevitably be reached, where extension of the working-day and intensity of the labor mutually exclude one another, in such a way that lengthening of the working-day becomes compatible only with a lower degree of intensity, and a higher degree of intensity, only with a shortening of the working-day. So soon as the gradually surging revolt of the working-class compelled Parliament to shorten compulsorily the hours of labor, and to begin by imposing a normal working-day on factories proper, so soon consequently as an increased production of surplus-value by the prolongation of the working-day was once for all put a stop to, from that moment capital threw itself with all its might and full awareness into the production of relative surplus-value, by hastening on the further improvement of machinery.

↑ With full awareness! ↓ After the limitation of the working-day, relative surplus-value changes its nature. Now relative surplus-value is generated no longer only by increases in productivity, but also by increases in intensity.

At the same time a change took place in the nature of relative surplus-value. Generally speaking, the mode of producing relative surplus-value consists in raising the productive power of the workman, so as to enable him to produce more in a given time with the same expenditure of labor. Labor-time continues to transmit as before the same value to the total product, but this unchanged amount of exchange-value is spread over more use-value; hence the value of each individual commodity sinks.

↑ This is how relative surplus-value has been generated until now. ↓ But after the limitation of the working-day relative surplus-value is generated in a different way:

Otherwise, however, so soon as the compulsory shortening of the hours of labor, alongside with the immense impetus it gives to the development of productive power and to economy in the means of production, imposes on the workman increased expenditure of labor in a given time, heightened tension of labor-power, and closer filling up

oxysmen handelt, sondern um tagaus, tagein wiederholte, regelmäßige Gleichförmigkeit, ein Knotenpunkt eintreten muß, wo Ausdehnung des Arbeitstags und Intensität der Arbeit einander ausschließen, so daß die Verlängerung des Arbeitstags nur mit schwächerem Intensitätsgrad der Arbeit und umgekehrt ein erhöhter Intensitätsgrad nur mit Verkürzung des Arbeitstags verträglich bleibt. Sobald die allmählich anschwellende Empörung der Arbeiterklasse den Staat zwang, die Arbeitszeit gewaltsam zu verkürzen und zunächst der eigentlichen Fabrik einen Normalarbeitstag zu diktieren, von diesem Augenblick also, wo gesteigerte Produktion von Mehrwert durch Verlängerung des Arbeitstags ein für allemal abgeschnitten war, warf sich das Kapital mit aller Macht und vollem Bewußtsein auf die Produktion von relativem Mehrwert durch beschleunigte Entwicklung des Maschinensystems.

Gleichzeitig tritt eine Änderung in dem Charakter des relativen Mehrwerts ein. Im allgemeinen besteht die Produktionsmethode des relativen Mehrwerts darin, durch gesteigerte Produktivkraft der Arbeit den Arbeiter zu befähigen, mit derselben Arbeitsausgabe in derselben Zeit mehr zu produzieren. Dieselbe Arbeitszeit setzt nach wie vor dem Gesamtprodukt denselben Wert zu, obgleich dieser unveränderte Tauschwert sich jetzt in mehr Gebrauchswerten darstellt und daher der Wert der einzelnen Ware sinkt.

Anders jedoch, sobald die gewaltsame Verkürzung des Arbeitstags mit dem ungeheuren Anstoß, den sie der Entwicklung der Produktivkraft und der Ökonomisierung der Produktionsbedingungen gibt, zugleich vergrößerte Arbeitsausgabe in derselben Zeit, erhöhte Anspannung der Arbeitskraft, dichtere Ausfüllung der Poren der Arbeitszeit,

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of the pores of the working-day, i.e., condensation of labor to a degree that is attainable only within the limits of the shortened working-day.

↑ Increases in productivity were accompanied by other efficiency measures: better economizing of constant capital and intensification of labor. The intensity of labor reached a degree which would have been unsustainable with the previous longer workday. I.e., the nodal point from 412:2/o was reached where “extension of the working-day and intensity of the labor mutually exclude one another.” ↓ From this point on, the more intense labor is recognized as labor producing more value.

This condensation of a greater mass of labor into a given period thenceforward counts for what it really is, a greater quantity of labor. In addition to a measure of its extension, i.e., duration, labor now acquires a measure of its intensity or of the degree of its condensation or density.¹⁵⁷ The denser hour of the ten hours’ working-day contains more labor, i.e., expended labor-power, than the more porous hour of the twelve hours’ working-day. The product therefore of one of the former hours has as much or more value than has the product of 1 1/5 of the latter hours.

↑ Since every hour of labor produces now more value, the necessary labor is produced in a shorter time, even if the value of labor-power remains constant. ↓ This effect takes place in addition to the other effect, that higher productivity lowers the value of the labor-power.

Apart from the increased yield of relative surplus-value through the heightened productiveness of labor, the same mass of value is now produced for the capitalist say by 3 1/3 hours of surplus-labor, and 6 2/3 hours of necessary labor, as was previously produced by four hours of surplus-labor and eight hours of necessary labor.

↑ In this example, the value of labor-power remains constant, but due to intensification of labor, this value is produced in a shorter time.

↓ Footnote 157 discusses the differences in intensity which arise spontaneously, not as a consequence of catching-up after the limitation of the workday? Marx makes two points: (1) these differences are compensated by other minor circumstances. (2) these differences in intensity do not result in more or less value per hour unless intensity gets to high that it requires a shortening of the labor-day.

¹⁵⁷ There are, of course, always differences, in the intensities of the labor in various industries. But these differences are, as Adam Smith has shown, compensated to a partial extent by minor circumstances, peculiar to each sort of labor. Labor-time, as a measure of value, is not, however, affected in this case, except in so far as

d.h. Kondensation der Arbeit dem Arbeiter zu einem Grad aufzwingt, der nur innerhalb des verkürzten Arbeitstags erreichbar ist.

Diese Zusammenpressung einer größeren Masse Arbeit in eine gegebene Zeitperiode zählt jetzt als was sie ist, als größtes Arbeitsquantum. Neben das Maß der Arbeitszeit als „ausgedehnter Größe“ tritt jetzt das Maß ihres Verdichtungsgrads.¹⁵⁷ Die intensivere Stunde des zehnstündigen Arbeitstags enthält jetzt so viel oder mehr Arbeit, d.h. verausgabte Arbeitskraft, als die porösere Stunde des zwölfstündigen Arbeitstags. Ihr Produkt hat daher so viel oder mehr Wert als das der poröseren 1 1/5 Stunden.

Abgesehn von der Erhöhung des relativen Mehrwerts durch die gesteigerte Produktivkraft der Arbeit, liefern jetzt z.B. 3 1/3 Stunden Mehrarbeit auf 6 2/3 Stunden notwendiger Arbeit dem Kapitalisten dieselbe Wertmasse wie vorher 4 Stunden Mehrarbeit auf 8 Stunden notwendiger Arbeit.

¹⁵⁷ Es finden natürlich überhaupt Unterschiede in der Intensität der Arbeiten verschiedener Produktionszweige statt. Diese kompensieren sich, wie schon A. Smith gezeigt hat, zum Teil durch jeder Arbeitsart eigne Nebenumstände. Einwirkung auf die Arbeitszeit als Wertmaß findet aber auch hier nur statt, soweit intensive und

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the duration of labor, and the degree of its intensity, are two antithetical and mutually exclusive expressions for one and the same quantity of labor.

↓ The rule that the worker has to be at the workplace for 10 hours a day is easy to enforce. It is much less easy to force him or her to work at some elevated intensity. How is this done?

413:1 We now come to the question: How is the labor intensified?

413:2–414:1 The first effect of shortening the working-day results from the self-evident law, that the efficiency of labor-power is in an inverse ratio to the duration of its expenditure. Hence, within certain limits what is lost by shortening the duration is gained by the increasing tension of labor-power. That the workman moreover really does expend more labor-power, is ensured by the mode in which the capitalist pays him.¹⁵⁸ In those industries, such as potteries, where machinery plays little or no part, the introduction of the Factory Acts has strikingly shown that the mere shortening of the working-day increases to a wonderful degree the regularity, uniformity, order, continuity, and energy of the labor.¹⁵⁹ It seemed, however, doubtful whether this effect was produced in the factory proper, where the dependence of the workman on the continuous and uniform motion of the machinery had already created the strictest discipline. Hence, when in 1844 the reduction of the working-day to less than twelve hours was being debated, the masters almost unanimously declared

“that their overlookers in the different rooms took good care that the hands lost no time,” that “the extent of vigilance and attention on the part of the workmen was hardly capable of being increased,” and, therefore, that the speed of the machinery and other conditions remaining unaltered, “to expect in a well-managed factory any important result from increased attention of the workmen was an absurdity.”¹⁶⁰

¹⁵⁸ Especially by piece-work, a form we shall

extensive Größe sich als entgegengesetzte und einander ausschließende Ausdrücke desselben Arbeitsquantums darstellen.

433:1 Es fragt sich nun, wie wird die Arbeit intensiviert?

433:2–3 Die erste Wirkung des verkürzten Arbeitstags beruht auf dem selbstverständlichen Gesetz, daß die Wirkungsfähigkeit der Arbeitskraft im umgekehrten Verhältnis zu ihrer Wirkungszeit steht. Es wird daher, innerhalb gewisser Grenzen, am Grad der Kraftäußerung gewonnen, was an ihrer Dauer verlorenght. Daß der Arbeiter aber auch wirklich mehr Arbeitskraft flüssig macht, dafür sorgt das Kapital durch die Methode der Zahlung.¹⁵⁸ In Manufakturen, der Töpferei z.B., wo die Maschinerie keine oder unbedeutende Rolle spielt, hat die Einführung des Fabrikgesetzes schlagend bewiesen, daß bloße Verkürzung des Arbeitstags die Regelmäßigkeit, Gleichförmigkeit, Ordnung, Kontinuität und Energie der Arbeit wundervoll erhöht.¹⁵⁹ Diese Wirkung schien jedoch zweifelhaft in der eigentlichen Fabrik, weil die Abhängigkeit des Arbeiters von der kontinuierlichen und gleichförmigen Bewegung der Maschine hier längst die strengste Disziplin geschaffen hatte. Als daher 1844 die Herabsetzung des Arbeitstags unter 12 Stunden verhandelt ward, erklärten die Fabrikanten fast einstimmig,

„ihre Aufseher paßten in den verschiedenen Arbeitsräumen auf, daß die Hände keine Zeit verlören“, „der Grad der Wachsamkeit und Aufmerksamkeit auf seiten der Arbeiter (the extent of vigilance and attention on the part of the workmen) sei kaum steigerungsfähig“, und alle andren Umstände, wie Gang der Maschinerie usw. als gleichbleibend vorausgesetzt, „sei es daher Unsinn, in wohlgeführten Fabriken von der gesteigerten Aufmerksamkeit usw. der Arbeiter irgendein erkleckliches Resultat zu erwarten“.¹⁶⁰

¹⁵⁸ Namentlich durch den Stücklohn, eine

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investigate in Part VI. of this book.

¹⁵⁹ See "Rep. of Insp. of Fact. for 31st October, 1865."

¹⁶⁰ Rep. of Insp. of Fact. for 1844 and the quarter ending 30th April, 1845, pp. 20–21.

↑ Would shorter hours bring an increase in intensity in mechanized industry, where the intensity was already very high, controlled by supervision and prescribed by the machinery itself? ↓ To the surprise of the capitalists, yes it did.

This assertion was contradicted by experiments. Mr. Robert Gardner reduced the hours of labor in his two large factories at Preston, on and after the 20th April, 1844, from twelve to eleven hours a day. The result of about a year's working was that

"the same amount of product for the same cost was received, and the workpeople as a whole earned in eleven hours as much wages as they did before in twelve."¹⁶¹

I pass over the experiments made in the spinning and carding rooms, because they were accompanied by an increase of 2% in the speed of the machines. But in the weaving department, where, moreover, many sorts of figured fancy articles were woven, there was not the slightest alteration in the conditions of the work. The result was:

"From 6th January to 20th April, 1844, with a twelve hours' day, average weekly wages of each hand 10 s. 1 1/2 d., from 20th April to 29th June, 1844, with day of eleven hours, average weekly wages 10 s. 3 1/2 d."¹⁶²

¹⁶¹ l.c., p. 19. Since the wages for piece-work were unaltered, the weekly wages depended on the quantity produced.

¹⁶² l.c., p. 20.

↓ Win-win situation for both workers and capitalists:

Here we have more produced in eleven hours than previously in twelve, and entirely in consequence of more steady application and economy of time by the workpeople. While they got the same wages and gained one hour of spare time, the capitalist got the same amount produced and saved the cost of coal, gas, and other such items, for one hour.

Form, die im sechsten Abschnitt entwickelt wird.

¹⁵⁹ Siehe „Reports of Insp. of Fact. for 31st Oct. 1865“.

¹⁶⁰ „Reports of Insp. of Fact. for 1844 and the quarter ending 30th April 1845“, p. 20, 21.

433:4–434:3 Diese Behauptung ward durch Experimente widerlegt. Herr R. Gardner ließ in seinen zwei großen Fabriken zu Preston vom 20. April 1844 anstatt 12 nur noch 11 Stunden per Tag arbeiten. Nach ungefähr Jahresfrist ergab sich das Resultat, daß

„dasselbe Quantum Produkt zu denselben Kosten erhalten ward, und sämtliche Arbeiter in 11 Stunden ebensoviel Arbeitslohn verdienten, wie früher in 12“.¹⁶¹

Ich übergehe hier die Experimente in den Spinn- und Kardierräumen, weil sie mit Zunahme in der Geschwindigkeit der Maschinerie (um 2%) verbunden waren. In dem Webedepartement dagegen, wo zudem sehr verschiedene Sorten leichter, figurenhaltiger Phantasieartikel gewebt wurden, fand durchaus keine Änderung in den objektiven Produktionsbedingungen statt. Das Resultat war:

„Vom 6. Januar bis 20. April 1844, mit zwölfstündigem Arbeitstag, wöchentlicher Durchschnittslohn jedes Arbeiters 10 sh. 1 1/2 d., vom 20. April bis 29. Juni 1844, mit elfstündigem Arbeitstag, wöchentlicher Durchschnittslohn 10 sh. 3 1/2 d.“¹⁶²

¹⁶¹ l.c. p. 19. Da der Stücklohn derselbe blieb, hing die Höhe des Wochenlohns vom Quantum des Produkts ab.

¹⁶² l.c. p. 20.

434:4 Es wurde hier in 11 Stunden mehr produziert als früher in 12, ausschließlich infolge größerer gleichmäßiger Ausdauer der Arbeiter und Ökonomie ihrer Zeit. Während sie denselben Lohn empfangen und 1 Stunde freie Zeit gewannen, erhielt der Kapitalist dieselbe Produktenmasse und sparte Verausgabung von Kohle, Gas usw. für eine

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Similar experiments, and with the like success, were carried out in the mills of Messrs. Horrocks and Jacson.¹⁶³

⇓ Why did shorter hours have such a powerful effect intensifying the labor? Workers have a much better attitude.

¹⁶³ The moral element played an important part in the above experiments. The workpeople told the factory inspector: "We work with more spirit, we have the reward ever before us of getting away sooner at night, and one active and cheerful spirit pervades the whole mill, from the youngest piecer to the oldest hand, and we can greatly help each other." (l.c., p. 21.)

Stunde. Ähnliche Experimente wurden mit gleichem Erfolg in den Fabriken der Herren Horrocks und Jacson ausgeführt.¹⁶³

¹⁶³ l.c. p. 21. Das moralische Element spielte bedeutende Rolle in den oben erwähnten Experimenten. „Wir“, erklärten die Arbeiter dem Fabrikinspektor, „wir arbeiten munterer, wir denken ständig an die Belohnung, abends früher wegzukommen, und ein tatkräftiger und freudiger Geist durchdringt die ganze Fabrik, vom jüngsten Anstücker bis zum ältesten Arbeiter, und wir können einander viel bei der Arbeit helfen.“ (l.c.)

↑ But such enthusiasm can only be temporary. ⇓ In order to actualize the increases in intensity made possible by the shortening of the workday, machinery is the main factor forcing the workers to work harder. But also the wage structure is such that it elicits maximum efforts and longest hours from the workers, as will be discussed in the Piece Wage Chapter starting with .

415:2 The shortening of the hours of labor creates, to begin with, the subjective conditions for the condensation of labor, by enabling the workman to exert more strength in a given time. So soon as that shortening becomes compulsory, machinery becomes in the hands of capital the objective means, systematically employed for squeezing out more labor in a given time. This is effected in two ways: by increasing the speed of the machinery, and by giving the workman more machinery to tent.

434:5/o Sobald die Verkürzung des Arbeitstags, welche zunächst die subjektive Bedingung der Kondensation der Arbeit schafft, nämlich die Fähigkeit des Arbeiters, mehr Kraft in gegebener Zeit flüssig zu machen, zwangsgesetzlich wird, wird die Maschine in der Hand des Kapitals zum objektiven und systematisch angewandten Mittel, mehr Arbeit in derselben Zeit zu erpressen. Es geschieht dies in doppelter Weise: durch erhöhte Geschwindigkeit der Maschinen und erweiterten Umfang der von demselben Arbeiter zu überwachenden Maschinerie oder seines Arbeitsfeldes.

⇓ Improvement of the machines is both the condition enabling the capitalist to squeeze more labor out of the workers, and at the same time a result of the intensified labor.

Improved construction of the machinery is necessary, partly because without it greater pressure cannot be put on the workman, and partly because the shortened hours of labor force the capitalist to exercise the strictest watch over the cost of production. The improvements in the steam-engine have increased the piston speed, and at the same time have made it possible, by means of a greater economy of power, to drive with the same or even a smaller consumption of coal more machinery with the same engine. The improvements in the transmitting mecha-

Verbesserte Konstruktion der Maschine ist teils notwendig zur Ausübung des größten Drucks auf den Arbeiter, teils begleitet sie von selbst die Intensifikation der Arbeit, weil die Schranke des Arbeitstags den Kapitalisten zu strengstem Haushalt der Produktionskosten zwingt. Die Verbesserung der Dampfmaschine erhöht die Anzahl ihrer Kolbensschläge in einer Minute und erlaubt zugleich, durch größere Kraftersparung einen umfangreichen Mechanismus mit demselben Motor zu treiben, bei gleichbleibendem oder selbst fallendem Kohlen-

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nism have lessened friction, and, what so strikingly distinguishes modern from the older machinery, have reduced the diameter and weight of the shafting to a constantly decreasing minimum. Finally, the improvements in the operative machines have, while reducing their size, increased their speed and efficiency, as in the modern power-loom; or, while increasing the size of their framework, have also increased the extent and number of their working parts, as in spinning-mules, or have added to the speed of these working parts by imperceptible alterations of detail, such as those which ten years ago increased the speed of the spindles in self-acting mules by one-fifth.

verzehr. Die Verbesserung des Transmissionsmechanismus vermindert die Reibung und, was die moderne Maschinerie so augenfällig vor der älteren auszeichnet, reduziert Durchmesser und Gewicht der großen und kleinen Wellenbäume auf ein stets fallendes Minimum. Die Verbesserungen der Arbeitsmaschinerie endlich vermindern bei erhöhter Geschwindigkeit und ausgedehnterer Wirkung ihren Umfang, wie beim modernen Dampfwebstuhl, oder vergrößern mit dem Rumpf Umfang und Zahl der von ihr geführten Werkzeuge, wie bei der Spinnmaschine, oder vermehren die Beweglichkeit dieser Werkzeuge durch unscheinbare Detailveränderungen, wie derartig bei der selfacting mule in der Mitte der fünfziger Jahre die Geschwindigkeit der Spindeln um 1/5 gesteigert wurde.

↑ Improvement of machinery made it faster and easier to handle. ↓ All this had amazing effects on productivity:

415:2–416:1 The reduction of the working-day to 12 hours dates in England from 1832. In 1836 a manufacturer stated:

“The labor now undergone in the factories is much greater than it used to be ... compared with thirty or forty years ago ... owing to the greater attention and activity required by the greatly increased speed which is given to the machinery.”¹⁶⁴

¹⁶⁴ John Fielden, l.c., p. 32.

In the year 1844, Lord Ashley, now Lord Shaftesbury, made in the House of Commons the following statements, supported by documentary evidence:

“The labor performed by those engaged in the processes of manufacture, is three times as great as in the beginning of such operations. Machinery has executed, no doubt, the work that would demand the sinews of millions of men; but it has also prodigiously multiplied the labor of those who are governed by its fearful movements ... In 1815, the labor of following a pair of mules spinning cotton of No. 40—reckoning 12 hours to the working-day—involved a necessity of walking 8 miles. In 1832, the distance travelled in following a pair of mules, spinning cotton yarn of the same

435:1–2 Die Verkürzung des Arbeitstags auf 12 Stunden datiert in England von 1832. Schon 1836 erklärte ein englischer Fabrikant:

„Verglichen mit früher ist die Arbeit, die in den Fabriken zu verrichten, sehr gewachsen, infolge der größten Aufmerksamkeit und Tätigkeit, welche die bedeutend vermehrte Geschwindigkeit der Maschinerie vom Arbeiter erheischt.“¹⁶⁴

¹⁶⁴ John Fielden, l.c. p. 32.

435:3–436:0 Im Jahr 1844 machte Lord Ashley, jetzt Graf Shaftesbury, folgende dokumentarisch belegte Aufstellungen im Hause der Gemeinen:

„Die Arbeit der in den Fabrikprozessen Beschäftigten ist jetzt dreimal so groß, als bei der Einführung solcher Operationen. Die Maschinerie hat zweifelsohne ein Werk verrichtet, welches die Sehnen und Muskeln von Millionen Menschen ersetzt, aber sie hat auch erstaunlich (prodigiously) die Arbeit der durch ihre furchtbare Bewegung beherrschten Menschen vermehrt ... Die Arbeit, einem Paar Mules während 12 Stunden auf und ab zu folgen, zum Spinnen von Garn Nr. 40, schloß im Jahre 1815 das Durchlaufen einer Distanz von 8 Meilen ein. Im Jahre 1832 betrug die im Ge-

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number, was 20 miles, and frequently more. In 1825 the spinner put up daily, on each of these mules, 820 stretches, making a total of 1,640 stretches in the course of the day. In 1832, the spinner put up on each mule 2,200 stretches, making a total of 4,400. In 1844, 2,400 stretches, making a total of 4,800; and in some cases the amount of labor required is even still greater ... I have another document sent to me in 1842, stating that the labor is progressively increasing—increasing not only because the distance to be travelled is greater, but because the quantity of goods produced is multiplied, while the hands are fewer in proportion than before; and, moreover, because an inferior species of cotton is now often spun, which it is more difficult to work ... In the carding-room there has also been a great increase of labor. One person there does the work formerly divided between two. In the weaving-room, where a vast number of persons are employed, and principally females ... the labor has increased within the last few years fully 10 per cent., owing to the increased speed of the machinery in spinning. In 1838, the number of hanks spun per week was 18,000, in 1843 it amounted to 21,000. In 1819, the number of picks in power-loom-weaving per minute was 60—in 1842 it was 140, showing a vast increase of labor.”¹⁶⁵

folge eines Mulepaars, zum Spinnen derselben Nummer, während 12 Stunden zu durchreisende Distanz 20 Meilen und oft mehr. Im Jahre 1825 hatte der Spinner während 12 Stunden 820 Auszüge an jeder Mule zu machen, was eine Gesamtsumme von 1640 für 12 Stunden ergab. Im Jahre 1832 hatte der Spinner während seines zwölfstündigen Arbeitstags an jeder Mule 2200 Auszüge zu machen, zusammen 4400, im Jahre 1844 an jeder Mule 2400, zusammen 4800; und in einigen Fällen ist die erheischte Arbeitsmasse (amount of labour) noch größer ... Ich habe hier ein andres Dokument von 1842 in der Hand, worin nachgewiesen wird, daß die Arbeit progressiv zunimmt, nicht nur, weil eine größere Entfernung zu durchreisen ist, sondern weil die Quantität der produzierten Waren sich vermehrt, während die Händezahl proportionell abnimmt; und ferner, weil nun oft schlechtere Baumwolle gesponnen wird, die mehr Arbeit erfordert ... Im Kardierraum hat auch große Zunahme der Arbeit stattgefunden. Eine Person tut jetzt die Arbeit, die früher zwischen zwei verteilt war ... In der Weberei, worin eine große Anzahl Personen, meist weiblichen Geschlechts, beschäftigt ist, ist die Arbeit während der letzten Jahre um volle 10% gewachsen, infolge der vermehrten Geschwindigkeit der Maschinerie. Im Jahre 1838 war die Zahl der hanks, die wöchentlich gesponnen wurde, 18 000, im Jahre 1843 belief sie sich auf 21 000. Im Jahr 1819 war die Zahl der picks beim Dampfwebstuhl 60 per Minute, im Jahre 1842 betrug sie 140, was einen großen Zuwachs von Arbeit anzeigt.“¹⁶⁵

¹⁶⁵ Lord Ashley, l.c., pp. 6–9, *passim*.

¹⁶⁵ Lord Ashley, l.c. p. 6–9 *passim*.

⇓ The 12-hour act resulted in such remarkable increase in intensity, that the capitalists, and even Factory Inspector Horner, thought that the 10-hour day would not be able to bring additional improvements.

In the face of this remarkable intensity of labor which had already been reached in 1844 under the Twelve Hours' Act, there appeared to be a justification for the assertion made at that time by the English manufacturers, that any further progress in that direction was impossible, and therefore that every further reduction of the hours of labor meant a lessened production. The apparent correctness of their reasons will be

436:1–2 Angesichts dieser merkwürdigen Intensität, welche die Arbeit unter der Herrschaft des Zwölfstundengesetzes bereits 1844 erreicht hatte, schien damals die Erklärung der englischen Fabrikanten berechtigt, jeder weitere Fortschritt in dieser Richtung sei unmöglich, daher jede weitere Abnahme der Arbeitszeit identisch mit Abnahme der Produktion. Die scheinbare Richtigkeit ihres Rasonnements wird am

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best shown by the following contemporary statement by Leonard Horner, the factory inspector, their ever watchful censor.

“Now, as the quantity produced must, in the main, be regulated by the speed of the machinery, it must be the interest of the mill-owner to drive it at the utmost rate of speed consistent with these following conditions, viz., the preservation of the machinery from too rapid deterioration; the preservation of the quality of the article manufactured; and the capability of the workman to follow the motion without a greater exertion than he can sustain for a constancy. One of the most important problems, therefore, which the owner of a factory has to solve is to find out the maximum speed at which he can run, with a due regard to the above conditions. It frequently happens that he finds he has gone too fast, that breakages and bad work more than counterbalance the increased speed, and that he is obliged to slacken his pace. I therefore concluded, that as an active and intelligent mill-owner would find out the safe maximum, it would not be possible to produce as much in eleven hours as in twelve. I further assumed that the operative paid by piecework, would exert himself to the utmost consistent with the power of continuing at the same rate.”¹⁶⁶

¹⁶⁶ Rep. of Insp. of Fact. for Quarter ending 30th September, 1844, and from 1st October, 1844, to 30th April, 1845, p. 20.

Horner, therefore, came to the conclusion, despite the experiments of Gardner and others, that a reduction of the working-hours below twelve would necessarily diminish production.¹⁶⁷ He himself, ten years later, cites his opinion of 1845 in proof of how much he under-estimated in that year the elasticity of machinery, and of man’s labor-power, both of which are simultaneously stretched to an extreme by the compulsory shortening of the working-day.

¹⁶⁷ I.c., p. 22.

⇓ After introduction of the ten-hour day, it turned out that, despite these pessimistic forecasts, a further intensification was possible:

417:2–3 We now come to the period that follows the introduction of the Ten Hours’ Act in 1847 into the English cotton,

besten bewiesen durch folgende gleichzeitige Äußerung ihres rastlosen Zensors, des Fabrikinspektors Leonard Horner:

„Da die produzierte Quantität hauptsächlich geregelt wird durch die Geschwindigkeit der Maschinerie, muß es das Interesse des Fabrikanten sein, sie mit dem äußersten Geschwindigkeitsgrad zu treiben, der mit folgenden Bedingungen vereinbar ist: Bewahrung der Maschinerie vor zu raschem Verderb, Erhaltung der Qualität des fabrizierten Artikels, und Fähigkeit des Arbeiters, der Bewegung zu folgen ohne größere Anstrengung, als er kontinuierlich leisten kann. Es ereignet sich oft, daß der Fabrikant in seiner Hast die Bewegung zu sehr beschleunigt. Brüche und schlechtes Machwerk wiegen dann die Geschwindigkeit mehr als auf, und er ist gezwungen, den Gang der Maschinerie zu mäßigen. Da ein aktiver und einsichtsvoller Fabrikant das erreichbare Maximum ausfindet, schloß ich, daß es unmöglich ist, in 11 Stunden so viel zu produzieren als in 12. Ich nahm außerdem an, daß der per Stücklohn bezahlte Arbeiter sich aufs äußerste austrenkt, soweit er denselben Arbeitsgrad kontinuierlich aushalten kann.“¹⁶⁶

¹⁶⁶ „Reports of Insp. of Fact. to 30th April 1845“, p. 20.

436:3/o Horner schloß daher, trotz der Experimente von Gardner usw., daß eine weitere Herabsetzung des Arbeitstages unter 12 Stunden die Quantität des Produkts vermindern müsse.¹⁶⁷ Er selbst zitiert 10 Jahre später sein Bedenken von 1845 zum Beweis, wie wenig er damals noch die Elastizität der Maschinerie und der menschlichen Arbeitskraft begriff, die beide gleichmäßig durch die zwangsweise Verkürzung des Arbeitstags aufs höchste gespannt werden.

¹⁶⁷ I.c. p. 22.

437:1–2 Kommen wir nun zur Periode nach 1847, seit Einführung des Zehnstundengesetzes in die englischen Baumwoll-,

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woollen, silk, and flax mills.

“The speed of the spindles has increased upon throstles 500, and upon mules 1,000 revolutions a minute, i.e., the speed of the throstle spindle, which in 1839 was 4,500 times a minute, is now (1862) 5,000; and of the mule spindle, that was 5,000, is now 6,000 times a minute, amounting in the former case to one-tenth, and in the second case to one-fifth additional increase.”¹⁶⁸

¹⁶⁸ “Rep. of Insp. of Fact. for 31st October, 1862,” p. 62.

James Nasmyth, the eminent civil engineer of Patricroft, near Manchester, explained in a letter to Leonard Horner, written in 1852, the nature of the improvements in the steam-engine that had been made between the years 1848 and 1852. After remarking that the horse-power of steam-engines, being always estimated in the official returns according to the power of similar engines in 1828,¹⁶⁹ is only nominal, and can serve only as an index of their real power, he goes on to say:

“I am confident that from the same weight of steam-engine machinery, we are now obtaining at least 50 per cent. more duty or work performed on the average, and that in many cases the identical steam-engines which in the days of the restricted speed of 220 feet per minute, yielded 50 horsepower, are now yielding upwards of 100 ...” “The modern steam-engine of 100 horse-power is capable of being driven at a much greater force than formerly, arising from improvements in its construction, the capacity and construction of the boilers, etc. ...” “Although the same number of hands are employed in proportion to the horse-power as at former periods, there are fewer hands employed in proportion to the machinery.”¹⁷⁰

“In the year 1850, the factories of the United Kingdom employed 134,217 nominal horse-power to give motion to 25,638,716 spindles and 301,445 looms. The number of spindles and looms in 1856 was respectively

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„Die Geschwindigkeit der Spindeln ist auf Throstles um 500, auf Mules um 1000 Drehungen in einer Minute gewachsen, d.h. die Geschwindigkeit der Throstlespindel, die 1839 4500 Drehungen in einer Minute zählte, beträgt nun“ (1862) „5000, und die der Mulespindel, die 5000 zählte, beträgt jetzt 6000 in der Minute; dies beläuft sich im ersten Fall auf 1/10 und im zweiten auf 1/6 zusätzlicher Geschwindigkeit.“¹⁶⁸

¹⁶⁸ „Reports of Insp. of Fact. for 31st Oct. 1862“, p. 62.

437:3–438:2 Jas. Nasmyth, der berühmte Zivilingenieur von Patricroft, bei Manchester, setzte 1852 in einem Brief an Leonard Horner die von 1848–1852 gemachten Verbesserungen in der Dampfmaschine auseinander. Nachdem er bemerkt, daß die Dampfpferdekraft, in der offiziellen Fabrikstatistik fortwährend geschätzt nach ihrer Wirkung im Jahr 1828,¹⁶⁹ nur noch nominell ist und nur als Index der wirklichen Kraft dienen kann, sagt er u.a.:

„Es unterliegt keinem Zweifel, daß Dampfmaschine von demselben Gewicht, oft dieselben identischen Maschinen, an denen nur die modernen Verbeßrungen angebracht sind, im Durchschnitt 50% mehr Werk als früher verrichten und daß in vielen Fällen dieselben identischen Dampfmaschinen, die in den Tagen der beschränkten Geschwindigkeit von 220 Fuß per Minute 50 Pferdekraft lieferten, heute, mit vermindertem Kohlenkonsum, über 100 liefern ... Die moderne Dampfmaschine von derselben nominellen Pferdekraft wird mit größerer Gewalt als früher getrieben, infolge der Verbeßrungen in ihrer Konstruktion, vermindertem Umfang und Bau der Dampfkessel usw. ... Obgleich daher dieselbe Händezahl wie früher im Verhältnis zur nominellen Pferdekraft beschäftigt wird, werden weniger Hände verwandt im Verhältnis zur Arbeitsmaschine.“¹⁷⁰

Im Jahre 1850 verwandten die Fabriken des Vereinigten Königreichs 134 217 nominelle Pferdekraft zur Bewegung von 25 638 716 Spindeln und 301 445 Webstühlen. Im Jahr 1856 betrug die Zahl der Spindeln und Webstühle

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33,503,580 of the former, and 369,205 of the latter, which, reckoning the force of the nominal horse-power required to be the same as in 1850, would require a force equal to 175,000 horses, but the actual power given in the return for 1856 is 161,435, less by above 10,000 horses than, calculating upon the basis of the return of 1850, the factories ought to have required in 1856.”¹⁷¹

“The facts thus brought out by the Return (of 1856) appear to be that the factory system is increasing rapidly; that although the same number of hands are employed in proportion to the horse-power as at former periods, there are fewer hands employed in proportion to the machinery; that the steam-engine is enabled to drive an increased weight of machinery by economy of force and other methods, and that an increased quantity of work can be turned off by improvements in machinery, and in methods of manufacture, by increase of speed of the machinery, and by a variety of other causes.”¹⁷² “The great improvements made in machines of every kind have raised their productive power very much. Without any doubt, the shortening of the hours of labor ... gave the impulse to these improvements. The latter, combined with the more intense strain on the workman, have had the effect, that at least as much is produced in the shortened (by two hours or one-sixth) working-day as was previously produced during the longer one.”¹⁷³

¹⁶⁹ This was altered in the “Parliamentary Return” of 1862. In it the actual horse-power of the modern steam engines and water wheels appears in place of the nominal. The doubling spindles, too, are no longer included in the spinning spindles (as was the case in the “Returns” of 1839, 1850, and 1856); further, in the case of woollen mills, the number of “gigs” is added, a distinction made between jute and hemp mills on the one hand and flax mills on the other, and finally stocking-weaving is for the first time inserted in the report.

¹⁷⁰ “Rep. of Insp. of Fact. for 31st October, 1856,” pp. 13–14, 20 and 1852, p. 23.

¹⁷¹ I.c., pp. 14–15.

¹⁷² I.c., p. 20.

¹⁷³ “Reports, etc., for 31st October, 1858,”

respektive 33 503 580 und 369 205. Wäre die erheischte Pferdekraft dieselbe geblieben wie 1850, so waren 1856: 175 000 Pferdekraft nötig. Sie betrug aber nach dem offiziellen Ausweis nur 161 435, also über 10 000 Pferdekraft weniger, als wenn man nach der Basis von 1850 rechnet.¹⁷¹

„Die durch den letzten Return von 1856“ (offizielle Statistik) „festgestellten Tatsachen sind, daß das Fabrikssystem reißend rasch um sich greift, die Zahl der Hände im Verhältnis zur Maschinerie abgenommen hat, die Dampfmaschine durch Ökonomie der Kraft und andre Methoden ein größeres Maschinengewicht treibt und ein vermehrtes Quantum Machwerk erzielt wird infolge verbesserter Arbeitsmaschinen, veränderter Methoden der Fabrikation, erhöhter Geschwindigkeit der Maschinerie und vieler anderer Ursachen.“¹⁷² „Die großen in Maschinen jeder Art eingeführten Verbesserungen haben deren Produktivkraft sehr gesteigert. Ohne allen Zweifel gab die Verkürzung des Arbeitstags ... den Stachel zu diesen Verbesserungen. Letztere und die intensivere Anstrengung des Arbeiters bewirkten, daß wenigstens ebensoviel Machwerk in dem“ (um zwei Stunden oder 1/6) „verkürzten Arbeitstag als früher während des längeren geliefert wird.“¹⁷³

¹⁶⁹ Dies hat sich geändert mit dem „Parliamentary Return“ von 1862. Hier tritt die wirkliche Dampfperdekraft der modernen Dampfmaschinen und Wasserräder an die Stelle der nominellen (s. Note 109a, S. 352). Auch sind die Dublierspindeln nicht mehr zusammengeworfen mit den eigentlichen Spinnspindeln (wie in den „Returns“ von 1839, 1850 und 1856); ferner ist für die Wollfabriken die Zahl der „gigs“ hinzugefügt, Scheidung eingeführt zwischen Jute- und Hanffabriken einerseits, Flachsfabriken andererseits, endlich zum ersten Mal die Strumpfwirkelei in den Bericht aufgenommen.

¹⁷⁰ „Reports of Insp. of Fact. for 31st Oct. 1856“, p. 14, 20.

¹⁷¹ I.c. p. 14, 15.

¹⁷² I.c. p. 20.

¹⁷³ „Reports etc. for 31st Oct. 1858“, p. 10.

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p. 10. Compare "Reports, etc., for 30th April, 1860," p. 30, sqq.

⇓ This intensification of labor increased profits and therefore the growth rate of the industry:

418:3 One fact is sufficient to show how greatly the wealth of the manufacturers increased along with the more intense exploitation of labor-power. From 1838 to 1850, the average proportional increase in English cotton and other factories was 32%, while from 1850 to 1856 it amounted to 86%.

418:4/o But however great the progress of English industry had been during the 8 years from 1848 to 1856 under the influence of a working-day of 10 hours, it was far surpassed during the next period of 6 years from 1856 to 1862. In silk factories, for instance, there were in 1856, spindles 1,093,799; in 1862, 1,388,544; in 1856, looms 9,260; in 1862, 10,709. But the number of operatives was, in 1856, 56,131; in 1862, 52,429. The increase in the spindles was therefore 26.9% and in the looms 15.6%, while the number of the operatives decreased 7%. In the year 1850 there were employed in worsted mills 875,830 spindles; in 1856, 1,324,549 (increase 51.2%), and in 1862, 1,289,172 (decrease 2.7%). But if we deduct the doubling spindles that figure in the numbers for 1856, but not in those for 1862, it will be found that after 1856 the number of spindles remained nearly stationary. On the other hand, after 1850, the speed of the spindles and looms was in many cases doubled. The number of power-loom in worsted mills was, in 1850, 32,617; in 1856, 38,956; in 1862, 43,048. The number of the operatives was, in 1850, 79,737; in 1856, 87,794; in 1862, 86,063; included in these, however, the children under 14 years of age were, in 1850, 9,956; in 1856, 11,228; in 1862, 13,178. In spite, therefore, of the greatly increased number of looms in 1862, compared with 1856, the total number of the workpeople employed decreased, and that of the children exploited

Vgl. „Reports etc. for 30th April 1860“, p. 30 sqq.

438:3 Wie die Bereicherung der Fabrikanten mit der intensiven Ausbeutung der Arbeitskraft zunahm, beweist schon der Umstand, daß das durchschnittliche Wachstum der englischen Baumwollens- usw. -Fabriken von 1838 bis 1850 pro Jahr 32, von 1850 bis 1856 dagegen 86 jährlich betrug.

438:4/o So groß in den 8 Jahren 1848 bis 1856, unter der Herrschaft des zehnstündigen Arbeitstags, der Fortschritt der englischen Industrie, wurde er wieder weit überflügelt in der folgenden sechsjährigen Periode von 1856 bis 1862. In der Seidenfabrik z.B. 1856: Spindeln 1093 799, 1862: 1388 544; 1856: Webstühle 9260 und 1862: 10 709. Dagegen 1856: Arbeiteranzahl 56 137 und 1862: 52 429. Dies ergibt Zunahme der Spindelzahl 26,9% und der Webstühle 15,6% mit gleichzeitiger Abnahme der Arbeiteranzahl um 7%. Im Jahre 1850 wurden in der Worsted-Fabrik angewandt 875 830 Spindeln, 1856: 1324 549 (Zunahme von 51,2%) und 1862: 1289 172 (Abnahme von 2,7%). Zählt man aber die Dublierspindeln ab, die in der Aufzählung für das Jahr 1856, aber nicht für 1862 figurieren, so blieb die Anzahl der Spindeln seit 1856 ziemlich stationär. Dagegen ward seit 1850 in vielen Fällen die Geschwindigkeit der Spindeln und Webstühle verdoppelt. Die Zahl der Dampfwebstühle in der Worsted-Fabrik 1850: 32 617, 1856: 38 956 und 1862: 43 048. Es waren dabei beschäftigt 1850: 79 737 Personen, 1856: 87 794 und 1862: 86 063, aber davon Kinder unter 14 Jahren 1850: 9 956, 1856: 11 228 und 1862: 13 178. Trotz sehr vermehrter Anzahl der Webstühle, 1862 verglichen mit 1856, nahm also die Gesamtzahl der beschäftigten Arbeit ab, die der exploitierten Kinder zu.¹⁷⁴

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increased.¹⁷⁴

¹⁷⁴ "Reports of Insp. of Fact. for 31st Oct., 1862," pp. 100 and 130.

↓ Further indirect proof of the intensification are the protests of the workers themselves:

419:1–2 On the 27th April, 1863, Mr. Ferrand said in the House of Commons:

"I have been informed by delegates from 16 districts of Lancashire and Cheshire, in whose behalf I speak, that the work in the factories is, in consequence of the improvements in machinery, constantly on the increase. Instead of as formerly one person with two helps tenting two looms, one person now tents three looms without helps, and it is no uncommon thing for one person to tent four. Twelve hours' work, as is evident from the facts adduced, is now compressed into less than 10 hours. It is therefore self-evident, to what an enormous extent the toil of the factory operative has increased during the last 10 years."¹⁷⁵

¹⁷⁵ On 2 modern power-loom a weaver now makes in a week of 60 hours 26 pieces of certain quality, length, and breadth; while on the old power-loom he could make no more than 4 such pieces. The cost of weaving a piece of such cloth had already soon after 1850 fallen from 2s. 9d. to 5 1/8 d.

(addition to 2nd edition:) "Thirty years ago" (1841) "one spinner with three placers was not required to attend to more than one pair of mules with 300–324 spindles. At the present time (1871) he has to mind with the help of 5 piecers 2,200 spindles, and produces not less than seven times as much yarn as in 1841." (Alex. Redgrave, Factory Inspector, in the *Journal of Arts*, 5th January, 1872.)

↓ These productivity increases came at the cost of an intensification of labor which is injurious to the health of the workers:

420:1–2 Although, therefore, the Factory Inspectors unceasingly and with justice, commend the results of the Acts of 1844 and 1850, yet they admit that the shortening of the hours of labor has already called forth such an intensification of the labor as is injurious to the health of the workman and to his capacity for work.

"In most of the cotton, worsted, and silk mills, an exhausting state of excitement necessary

¹⁷⁴ „Reports of Insp. of Fact. for 31st Oct. 1862“, p. 100, 103, 129, 130.

439:1–2 Am 27. April 1863 erklärte das Parlamentsmitglied Ferrand im Unterhause:

„Arbeiterdelegierte von 16 Distrikten von Lancashire und Cheshire, in deren Auftrag ich spreche, haben mir mitgeteilt, daß die Arbeit in den Fabriken infolge der Verbesserung der Maschinerie beständig wachse. Statt daß früher eine Person mit Gehilfen zwei Webstühle bediente, bedient sie jetzt drei ohne Gehilfen, und es ist gar nichts Ungewöhnliches, daß eine Person ihrer vier bedient usw. Zwölf Stunden Arbeit, wie aus den mitgeteilten Tatsachen hervorgeht, werden jetzt in weniger als 10 Arbeitsstunden gepreßt. Es ist daher selbstverständlich, in welchem ungeheuren Umfang die Mühen der Fabrikarbeiter sich seit den letzten Jahren vermehrt haben.“¹⁷⁵

¹⁷⁵ Mit dem modernen Dampfwebstuhl fabriziert ein Weber jetzt in 60 Stunden per Woche auf 2 Stühlen 26 Stück einer gewissen Art von bestimmter Länge und Breite, wovon er auf dem alten Dampfwebstuhl nur 4 fabrizieren konnte. Die Webkosten eines solchen Stücks waren schon Anfang der 1850er Jahre von 2 sh. 9 d. auf 5 1/8 d. gefallen.

Zusatz zur 2. Ausgabe. „Vor 30 Jahren“ (1841) „verlangte man von einem Baumwollgarnspinner mit 3 Gehilfen nur die Überwachung eines Mulepaars mit 300 bis 324 Spindeln. Mit 5 Gehilfen hat er jetzt“ (Ende 1871) „Mules zu überwachen, deren Spindelzahl 2200 beträgt, und produziert mindestens siebenmal mehr Garn als 1841.“ (Alexander Redgrave, Fabrikinspektor, in „*Journal of the Soc. of Arts*“, Jan. 5. 1872.)

439:3–440:1 Obgleich daher die Fabrikinspektoren die günstigen Resultate der Fabrikgesetze von 1844 und 1850 unermüdlich und mit vollem Recht lobpreisen, gestehn sie doch, daß die Verkürzung des Arbeitstags bereits eine die Gesundheit der Arbeiter, also die Arbeitskraft selbst zerstörende Intensität der Arbeit hervorgerufen habe.

„In den meisten Baumwoll-, Worsted- und Seidenfabriken scheint der erschöpfende Zu-

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to enable the workers satisfactorily to mind the machinery, the motion of which has been greatly accelerated within the last few years, seems to me not unlikely to be one of the causes of that excess of mortality from lung disease, which Dr. Greenhow has pointed out in his recent report on this subject.”¹⁷⁶

¹⁷⁶ “Rep. of Insp. of Fact. for 31st Oct., 1861,” pp. 25, 26.

↓ The next step must therefore be a renewed reduction of working hours.

There cannot be the slightest doubt that the tendency that urges capital, so soon as a prolongation of the hours of labor is once for all forbidden, to compensate itself, by a systematic heightening of the intensity of labor, and to convert every improvement in machinery into a more perfect means of exhausting the workman, must soon lead to a state of things in which a reduction of the hours of labor will again be inevitable.¹⁷⁷ On the other hand, the rapid advance of English industry between 1848 and the present time, under the influence of a day of 10 hours, surpasses the advance made between 1833 and 1847, when the day was 12 hours long, by far more than the latter surpasses the advance made during the half century after the first introduction of the factory system, when the working-day was without limits.¹⁷⁸

¹⁷⁷ The agitation for a working-day of 8 hours has now (1867) begun in Lancashire among the factory operatives.

¹⁷⁸ The following few figures indicate the increase in the “factories” of the United Kingdom since 1848: See the Blue books “Statistical Abstract of the United Kingdom,” Nos. 8 and 13, Lond., 1861 and 1866. In Lancashire the number of mills increased only 4 per cent. between 1839 and 1850; 19 per cent. between 1850 and 1856; and 33 per cent. between 1856 and 1862; while the persons employed in them during each of the above periods of 11 years increased absolutely, but diminished relatively. (See “Rep. of Insp. of Fact., for 31st Oct., 1862,” p. 63.) The cotton trade preponderates in Lancashire. We may form an idea of the stupendous nature of the cotton trade in that district when we consider that, of the gross number of textile factories in

stand von Aufregung, nötig für die Arbeit an der Maschinerie, deren Bewegung in den letzten Jahren so außerordentlich beschleunigt worden ist, eine der Ursachen des Überschusses der Sterblichkeit an Lungenkrankheiten, den Dr. Greenhow in seinem jüngsten bewundernswerten Bericht nachgewiesen hat.“¹⁷⁶

¹⁷⁶ „Reports of Insp. of Fact. for 31st Oct. 1861“, p. 25, 26.

440:2 Es unterliegt nicht dem geringsten Zweifel, daß die Tendenz des Kapitals, sobald ihm Verlängerung des Arbeitstags ein für allemal durch das Gesetz abgeschnitten ist, sich durch systematische Steigerung des Intensitätsgrads der Arbeit gütlich zu tun und jede Verbeßrung der Maschinerie in ein Mittel zu größerer Aussaugung der Arbeitskraft zu verkehren, bald wieder zu einem Wendepunkt treiben muß, wo abermalige Abnahme der Arbeitsstunden unvermeidlich wird.¹⁷⁷ Andererseits überflügelt der Sturm marsch der englischen Industrie von 1848 bis zur Gegenwart, d.h. während der Periode des zehnstündigen Arbeitstags, noch weit mehr die Zeit von 1833 bis 1837, d.h. die Periode des zwölfstündigen Arbeitstags, als letztere das halbe Jahrhundert seit Einführung des Fabriksystems, d.h. die Periode des unbeschränkten Arbeitstags.¹⁷⁸

¹⁷⁷ Die Achtstundenagitation hat jetzt (1867) in Lancashire unter den Fabrikarbeitern begonnen.

¹⁷⁸ Folgende wenige Zahlen zeigen den Fortschritt der eigentlichen „Factories“ im U[nited] Kingd[om] seit 1848: (see Table ??) (Sich die Blaubücher: „Statistical Abstract for the U. Kingd.“, Nr. 8 und Nr. 13, Lond. 1861 und 1866.) In Lancashire vermehrten sich die Fabriken zwischen 1839 und 1850 nur um 4%, zwischen 1850 und 1856 um 19%, zwischen 1856 und 1862 um 33%, während in beiden elfjährigen Perioden die Zahl der beschäftigten Personen absolut zunahm, relativ fiel. Cf. „Reports of Fact. for 31st Oct. 1862“, p. 63. In Lancashire herrscht die Baumwollfabrik vor. Welchen proportionellen Raum sie aber in der Fabrikation von Garn und Gewebe überhaupt einnimmt, sieht man daraus, daß auf sie allein von allen derartigen Fa-

the United Kingdom, it absorbs 45.2 per cent., of the spindles 83.3 per cent., of the power-loom 81.4 per cent., of the mechanical horse-power 72.6 per cent., and of the total number of persons employed 58.2 per cent. (l.c., pp. 62–63.)

briken in England, Wales, Schottland und Irland 45,2% fallen, von allen Spindeln 83,3%, von allen Dampfwebstühlen 81,4%, von aller sie bewegenden Dampfpferdekraft 72,6% und von der Gesamtzahl der beschäftigten Personen 58,2%. (l.c. p. 62, 73.)

15.4. The Factory

Questions about Section 4:

Question 1013 *In the capitalistic factory the division of labor has proceeded to the point where the very components of the labor process are separated. Discuss this statement.*

↓ The first paragraph gives a brief orientation where we are in the course of the analysis.

420:4/o At the commencement of this chapter we considered that which we may call the body of the factory, i.e., machinery organised into a system.

441:1 Wir betrachteten im Beginn dieses Kapitels den Leib der Fabrik, die Gliederung des Maschinensystems.

Question 1014 *Wasn't the factory already discussed in the section about the machine system? What else is there to discuss?*

We then saw how machinery, by annexing the labor of women and children, augments the number of human beings who form the material for capitalistic exploitation, how it confiscates the whole of the workman's disposable time, by immoderate extension of the hours of labor, and how finally its progress, which allows of enormous increase of production in shorter and shorter periods, serves as a means of systematically getting more work done in a shorter time, or of exploiting labor-power more intensely.

Wir sahen dann, wie die Maschinerie das menschliche Exploitationsmaterial des Kapitals vermehrt durch Aneignung der Weiber- und Kinderarbeit, wie sie ganze Lebenszeit des Arbeiters konfisziert durch maßlose Ausdehnung des Arbeitstags und wie ihr Fortschritt, der ein ungeheuer wachsendes Produkt in stets kürzerer Zeit zu liefern erlaubt, endlich als systematisches Mittel dient, in jedem Zeitmoment mehr Arbeit flüssig zu machen oder die Arbeitskraft stets intensiver auszubeuten.

His own subsections 15.3.a–15.3.c

We now turn to the factory as a whole, and that in its most perfect form.

Wir wenden uns nun zum Fabrikganzen, und zwar in seiner ausgebildetsten Gestalt.

15.4.a. [Definition of the Factory]

↓ Marx begins with two different definitions of the factory by the same author:

421:1–2 Dr. Ure, the Pindar of the automatic factory, describes it, on the one hand, as

“Combined co-operation of many orders of workpeople, adult and young, in tending with assiduous skill, a system of productive machines, continuously impelled by a central

441:2–5 Dr. Ure, der Pindar der automatischen Fabrik, beschreibt sie einerseits als

„Kooperation verschiedener Klassen von Arbeitern, erwachsenen und nicht erwachsenen, die mit Gewandtheit und Fleiß ein System produktiver Maschinerie überwachen, das unun-

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power" (the prime mover);	terbrochen durch eine Zentralkraft (den ersten Motor) in Tätigkeit gesetzt wird",
on the other hand, as	andererseits als
"a vast automaton, composed of various mechanical and intellectual organs, acting in uninterrupted concert for the production of a common object, all of them being subordinate to a self-regulated moving force."	„einen ungeheuren Automaten, zusammengesetzt aus zahllosen mechanischen und selbstbewußten Organen, die im Einverständnis und ohne Unterbrechung wirken, um einen und denselben Gegenstand zu produzieren, so daß alle diese Organe einer Bewegungskraft untergeordnet sind, die sich von selbst bewegt“.

↑ The “intellectual (*selbstbewußte*) organs” are, of course, those of the workers in the system. ↓ These two descriptions are by no means identical.

These two descriptions are far from being identical. In one, the collective laborer, or social body of labor, appears as the dominant subject, and the mechanical automaton as the object; in the other, the automaton itself is the subject, and the workmen are merely conscious organs, subordinated to the central moving-power, alongside the unconscious organs of the automaton.

442:1–2 Diese beiden Ausdrücke sind keineswegs identisch. In dem einen erscheint der kombinierte Gesamtarbeiter oder gesellschaftliche Arbeitskörper als übergreifendes Subjekt und der mechanische Automat als Objekt; in dem andren ist der Automat selbst das Subjekt, und die Arbeiter sind nur als bewußte Organe seinen bewußtlosen Organen beigeordnet und mit denselben der zentralen Bewegungskraft untergeordnet.

The discrepancy between these definitions illustrates what distinguishes the capitalistic factory from application of machinery in general.

The first description is applicable to every possible employment of machinery on a large scale, the second is characteristic of its use by capital, and therefore of the modern factory system. Ure prefers therefore, to describe the central machine, from which the motion comes, not only as an automaton, but as an autocrat.

Der erstere Ausdruck gilt von jeder möglichen Anwendung der Maschinerie im großen, der andre charakterisiert ihre kapitalistische Anwendung und daher das moderne Fabrikssystem. Ure liebt es daher auch, die Zentralmaschine, von der die Bewegung ausgeht, nicht nur als Automat, sondern als Autokrat darzustellen.

“In these spacious halls the benignant power of steam summons around him his myriads of willing menials.”¹⁷⁹

„In diesen großen Werkstätten versammelt die wohlthätige Macht des Dampfes ihre Myriaden von Untertanen um sich.“¹⁷⁹

¹⁷⁹ Ure, l.c., p. 18.

¹⁷⁹ Ure, l.c. p. 18.

Question 1015 *What distinguishes the capitalistic factory from applications of machinery in general?*

After these definitions from the literature, which show the relations between the components that make up a factory, Marx himself now discusses those components separately.

15.4.b. [Division of Labor in the Factory]

This central subdivision of section 4 discusses the specialization of the labors, the division of labor, and the organization of the laborers. However the logical structure of the subdivision is not worked out well. I think one key to understanding it is the distinction between the specialization of labor and the division of labor. The development of the mode of production

gives rise to a certain specialization of the labors that have to be performed. But given this specialization, it is still another question whether each of these specialized tasks is assigned to a different individual, or whether the same individual performs the different specialized tasks in turn. In his discussion of the division of labor, Marx certainly had in mind that there is quite a difference between the division of labor and the separation of the very elements that make up labor, such as, mental and physical, nerves and muscle. Marx spelled this out in Resultate, I should find the quote and bring it here! Machinery supersedes the former, but creates the latter. The quote does not apply directly because it talks about the social division of labor mediated by money. This disintegration of the labor process probably comes from the fact that machinery analyzes the production process objectively, but Marx never makes this connection. As I said, there is a lot in this subdivision, but we have to make the connections ourselves.

Technical basis provided by the machinery for the division of labor (division of labor from the side of machinery).

In the factory, a division of labor like in the manufactories (and the corresponding hierarchy of workers) is no longer a technical necessity (technische Basis ist aufgehoben). The different partial laborers no longer require long years to learn their skills. Instead, equalization of labors. This is potentially a great progress, as Marx wrote in Poverty of Philosophy.

In Poverty of Philosophy ([mecw]) he quotes Ure as follows: (We do not bring the whole quote, which is composed of several places from Ure with “...” in between; by the way, immediately preceding the place we bring Marx had the quote also given in footnote 182 to paragraph 423:2/o): “Aber nach dem Prinzip der *Gleichmachung* oder dem automatischen System werden die Fähigkeiten des Arbeiters nur einer angenehmen Übung unterworfen etc. ... Da seine Tätigkeit darin besteht, die Arbeit eines wohlgeordneten Mechanismus zu überwachen, kann er sie in kurzer Zeit erlernen; indem er seine Leistungen von einer Maschine auf die andere überträgt, wechselt er seine Tätigkeit und entwickelt er seine Ideen, indem er über die allgemeinen Kombinationen nachdenkt, welche aus seiner und seiner Kollegen Arbeit resultieren.” 1/2 page later, Marx says it once more in his own words: “Was die Teilung der Arbeit in der mechanischen Fabrik kennzeichnet, ist, daß sie jeden Spezialcharakter verloren hat. Aber von dem Augenblick an, wo jede besondere Entwicklung aufhört, macht sich das Bedürfnis nach Universalität, das Bestreben nach einer allseitigen Entwicklung des Individuums fühlbar. Die automatische Fabrik beseitigt die Spezialisten und den Fachidiotismus.” ([mecw]) (See also the very good quote about Fachidioten immediately before this paragraph.) Note that there is still division of labor, but there is no longer specialization! Also the last half sentence in the paragraph in CI currently under discussion, about the natural differences of age and sex, seems to describe a potential progress: Everyone can do the work that best suits his age, sex, bodily stature, etc.

422:1/o Along with the tool, the skill of the workman in handling it passes over to the machine. The capabilities of the tool are emancipated from the restraints that are inseparable from human labor-power. Thereby the technical foundation on which is based the division of labor in Manufacture, is swept away. Hence, in the place of the hierarchy of specialized workmen that characterises manufacture, there steps, in the automatic factory, a tendency to equalise

442:3 Mit dem Arbeitswerkzeug geht auch die Virtuosität in seiner Führung vom Arbeiter auf die Maschine über. Die Leistungsfähigkeit des Werkzeugs ist emanzipiert von den persönlichen Schranken menschlicher Arbeitskraft. Damit ist die technische Grundlage aufgehoben, worauf die Teilung der Arbeit in der Manufaktur beruht. An die Stelle der sie charakterisierenden Hierarchie der spezialisierten Arbeiter tritt daher in der automatischen Fabrik

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and reduce to one and the same level every kind of work that has to be done by the minders of the machines;¹⁸⁰ in the place of the artificially produced differentiations of the detail workmen, step the natural differences of age and sex.

¹⁸⁰ Ure, l.c., p. 31. See Karl Marx, l.c., pp. 140–141.

For what kind of specialization, division of labor, is machinery the technical basis? The last sentence of the paragraph gives the answer: “Diese Teilung der Arbeit ist rein technisch.”

423:1 So far as division of labor reappears in the factory, it is primarily a distribution of the workmen among the specialized machines; and of masses of workmen, not however organised into groups, among the various departments of the factory, in each of which they work at a number of similar machines placed together; their co-operation, therefore, is only simple. The organised group, peculiar to manufacture, is replaced by the connexion between the head workman and his few assistants.

die Tendenz der Gleichmachung oder Nivellierung der Arbeiten, welche die Gehilfen der Maschinerie zu verrichten haben,¹⁸⁰ an die Stelle der künstlich erzeugten Unterschiede der Teilarbeiter treten vorwiegend die natürlichen Unterschiede des Alters und Geschlechts.

¹⁸⁰ l.c. p. 20. Vgl. Karl Marx, „Misère etc.“, p. 140, 141.

442:4/o Soweit in der automatischen Fabrik die Teilung der Arbeit wiedererscheint, ist sie zunächst Verteilung von Arbeitern unter die spezialisierten Maschinen und von Arbeitermassen, die jedoch keine gegliederten Gruppen bilden, unter die verschiedenen Departements der Fabrik, so sie an nebeneinander gereihten gleichartigen Werkzeugmaschinen arbeiten, also nur einfache Kooperation unter ihnen stattfindet. Die gegliederte Gruppe der Manufaktur ist ersetzt durch den Zusammenhang des Hauptarbeiters mit wenigen Gehilfen.

↑ The above two-entence passage—which, by the way, is a separate paragraph in French—seems to say: There is division of labor between the departments (each department operating one kind of special machines, but several copies of it), and simple co-operation within each department. ↓ Next Marx discusses the essential division (wesentliche Scheidung) of labors into three categories called forth by the machines: (a) Workers who are actually employed on the machine, (b) feeders and helpers, and (c) engineers.

The essential division is, into workmen who are actually employed on the machines (among whom are included a few who look after the engine), and into mere attendants (almost exclusively children) of these workmen. Among the attendants are reckoned more or less all “Feeders” who supply the machines with the material to be worked. In addition to these two principal classes, there is a numerically unimportant class of persons, whose occupation it is to look after the whole of the machinery and repair it from time to time; such as engineers, mechanics, joiners, etc. This is a superior class of workmen, some of them scientifically educated, others brought up to a trade; it is distinct from the factory operative class, and

Die wesentliche Scheidung ist die von Arbeitern, die wirklich an den Werkzeugmaschinen beschäftigt sind (es kommen hierzu einige Arbeiter zur Bewachung, resp. Fütterung der Bewegungsmaschine), und von bloßen Handlangern (fast ausschließlich Kinder) dieser Maschinenarbeiter. Zu den Handlangern zählen mehr oder minder alle „Feeders“ (die den Maschinen bloß Arbeitsstoff darreichen). Neben diese Hauptklassen tritt ein numerisch unbedeutendes Personal, das mit der Kontrolle der gesamten Maschinerie und ihrer beständigen Reparatur beschäftigt ist, wie Ingenieure, Mechaniker, Schreiner usw. Es ist eine höhere, teils wissenschaftlich gebildete, teils handwerksmäßige Arbeiterklasse, außerhalb des

merely aggregated to it.¹⁸¹

Kreises der Fabrikarbeiter und ihnen nur aggregiert.¹⁸¹

⇓ Interesting footnote about statistical fraud:

¹⁸¹ It looks very like intentional misleading by statistics (which misleading it would be possible to prove in detail in other cases too), when the English factory legislation excludes from its operation the class of laborers last mentioned in the text, while the parliamentary returns expressly include in the category of factory operatives, not only engineers, mechanics, etc., but also managers, salesmen, messengers, warehousemen, packers, etc., in short everybody, except the owner of the factory himself.

¹⁸¹ Es ist charakteristisch für die Absicht des statistischen Betrugs, die auch sonst noch im Detail nachweisbar wäre, wenn die englische Fabrikgesetzgebung die zuletzt im Text erwähnten Arbeiter ausdrücklich als Nicht-Fabrikarbeiter von ihrem Wirkungskreis ausschließt, andererseits die vom Parlament veröffentlichten „Returns“ ebenso ausdrücklich nicht nur Ingenieure, Mechaniker usw., sondern auch Fabrikdirigenten, Kommis, Ausläufer, Lageraufseher, Verpacker usw., kurz alle Leute, mit Ausschluß des Fabrikeigentümers selbst, in die Kategorie der Fabrikarbeiter einschließen.

This division of labor is purely technical.

Diese Teilung der Arbeit ist rein technisch.

I.e., this division of labor does not come from the social relations, not from who controls the means of production, but from the technology of the means of production themselves.

Question 1016 *Why did factory legislation exclude engineers and mechanics from the definition of factory workers, while the “returns” published by parliament included them?*

⇓ Qualification required from the worker to do machine labor (division of labor from the side of labor).

The first and second category of these workers looked at in more detail. (Third is outside the factory operative class and therefore not discussed). The first requires getting used to machinery at an early age, but does *not* require that the same workers performs the same functions all their lives. (Is this an elaboration of what had been called before: the technical foundation of which is based the division of labor in manufacture, is swept away (aufgehoben) in 422:1/o).

423:2/o To work at a machine, the workman should be taught from childhood, in order that he may learn to adapt his own movements to the uniform and unceasing motion of an automaton. When the machinery, as a whole, forms a system of manifold machines, working simultaneously and in concert, the co-operation based upon it, requires the distribution of various groups of workmen among the different kinds of machines. But the employment of machinery does away with the necessity of crystallising this distribution after the manner of the manufactories, by the permanent annexation of a particular worker to a particular function.¹⁸² Since the motion of the whole system does not proceed from the workman, but from the machinery, a change of persons can take

443:1/o Alle Arbeit an der Maschine erfordert frühzeitige Anlernung des Arbeiters, damit er seine eigne Bewegung der gleichförmig kontinuierlichen Bewegung eines Automaten anpassen lerne. Soweit die Gesamtmaschinerie selbst ein System mannigfacher, gleichzeitig wirkender und kombinierter Maschinen bildet, erfordert auch die auf ihr beruhende Kooperation eine Verteilung verschiedenartiger Arbeitergruppen unter die verschiedenartigen Maschinen. Aber der Maschinenbetrieb hebt die Notwendigkeit auf, diese Verteilung manufakturmäßig zu befestigen durch fortwährende Aneignung derselben Arbeiter an dieselbe Funktion.¹⁸² Da die Gesamtbewegung der Fabrik nicht vom Arbeiter ausgeht, sondern von der Maschine, kann fortwährender

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place at any time without an interruption of the work. The most striking proof of this is afforded by the *relays system*, put into operation by the manufacturers during their revolt from 1848–1850. Lastly, the quickness with which machine work is learnt by young people, does away with the necessity of bringing up for exclusive employment by machinery, a special class of operatives.¹⁸³

¹⁸² Ure grants this. He says, “in case of need,” the workmen can be moved at the will of the manager from one machine to another, and he triumphantly exclaims: “Such a change is in flat contradiction with the old routine, that divides the labor, and to one workman assigns the task of fashioning the head of a needle, to another the sharpening of the point.” He had much better have asked himself, why this “old routine” is departed from in the automatic factory, only “in case of need.”

¹⁸³ When distress is very great, as, for instance, during the American Civil War, the factory operative is now and then set by the Bourgeois to do the roughest of work, such as road-making, etc. The English “ateliers nationaux” of 1862 and the following years, established for the benefit of the destitute cotton operatives, differ from the French of 1848 in this, that in the latter the workmen had to do unproductive work at the expense of the state, in the former they had to do productive municipal work to the advantage of the bourgeois, and that, too, cheaper than the regular workmen, with whom they were thus thrown into competition. “The physical appearance of the cotton operatives is unquestionably improved. This I attribute ... as to the men, to outdoor labor on public works.” (“Rep. of Insp. of Fact., 31st Oct., 1863,” p. 59.) The writer here alludes to the Preston factory operatives, who were employed on Preston Moor.

⇓ Second category is completely simple.

With regard to the work of the mere attendants, it can, to some extent, be replaced in the mill by machines,¹⁸⁴ and owing to its extreme simplicity, it allows of a rapid and constant change of the individuals burdened

Personenwechsel stattfinden ohne Unterbrechung des Arbeitsprozesses. Den schlagendsten Beweis hierzu liefert das während der englischen Fabrikantenrevolte von 1848–1850 ins Werk gesetzte Relaisystem. Die Geschwindigkeit endlich, womit die Arbeit an der Maschine im jugendlichen Alter erlernt wird, beseitigt ebenso die Notwendigkeit, eine besondere Klasse Arbeiter ausschließlich zu Maschinenarbeitern heranzuziehen.¹⁸³

¹⁸² Ure gibt dies zu. Er sagt, daß die Arbeiter „im Notfall nach dem Willen des Dirigenten von einer Maschine zur andren versetzt werden können“, und ruft triumphierend aus: „Dergleichen Wechsel steht im offenen Widerspruch mit der alten Routine, die die Arbeit teilt und dem einen Arbeiter die Aufgabe zuweist, den Kopf einer Stecknadel zu fassonieren, dem andren, ihre Spitze zu schleifen.“ Er hätte sich vielmehr fragen sollen, warum diese „alte Routine“ in der automatischen Fabrik nur im „Notfall“ verlassen wird.

¹⁸³ Wenn Not an Mann ist, wie z.B. während des Amerikanischen Bürgerkriegs, wird der Fabrikarbeiter ausnahmsweise vom Bourgeois zu den gröbsten Arbeiten, wie Straßenbau usw., verwandt. Die englischen „ateliers nationaux“ des Jahres 1862 u. folg. für die beschäftigungslosen Baumwollarbeiter unterschieden sich dadurch von den französischen von 1848, daß in diesen der Arbeiter auf Kosten des Staats unproduktive Arbeiten, in jenen zum Vorteil des Bourgeois produktive städtische Arbeiten, und zwar wohlfeiler als die regelmäßigen Arbeiter, mit denen er so in Konkurrenz geworfen ward, zu verrichten hatte. „Das körperliche Aussehen der Baumwollarbeiter ist zweifellos besser geworden. Das führe ich ..., woweit es sich um die Männer handelt, auf die Beschäftigung im Freien bei öffentlichen Arbeiten zurück.“ (Es handelt sich hier von den Preston-Fabrikarbeitern, die am „Preston Moor“ beschäftigt wurden.) „Rep. of Insp. of Fact. Oct. 1863“, p. 59.)

Die Dienste der bloßen Handlanger aber sind in der Fabrik teils durch Maschinen ersetzbar,¹⁸⁴ teils erlauben sie wegen ihrer völligen Einfachheit raschen und beständigen Wechsel der mit dieser Plackerei bela-

with this drudgery.

¹⁸⁴ An example: The various mechanical apparatus introduced since the Act of 1844 into woollen mills, for replacing the labor of children. So soon as it shall happen that the children of the manufacturers themselves have to go through a course of schooling as helpers in the mill, this almost unexplored territory of mechanics will soon make remarkable progress. "Of machinery, perhaps self-acting mules are as dangerous as any other kind. Most of the accidents from them happen to little children, from their creeping under the mules to sweep the floor whilst the mules are in motion. Several 'minders' have been fined for this offence, but without much general benefit. If machine makers would only invent a self-sweeper, by whose use the necessity for these little children to creep under the machinery might be prevented, it would be a happy addition to our protective measures." ("Reports of Insp. of Fact. for 31st Oct., 1866," p. 63.)

steten Personen.

¹⁸⁴ Beispiel: Die verschiedenen mechanischen Apparate, die zum Ersatz von Kinderarbeit seit dem Gesetz von 1844 in der Wollfabrik eingeführt wurden. Sobald die Kinder der Herren Fabrikanten selbst „ihre Schule“ als Handlanger der Fabrik durchzumachen haben, wird dies fast noch unangebaute Gebiet der Mechanik bald einen merkwürdigen Aufschwung nehmen. „Die self-acting mules sind vielleicht eine so gefährliche Maschinerie als irgendeine andere. Die meisten Unglücksfälle begegnen kleinen Kindern, und zwar infolge ihres Kriechens unter die Mules, um den Boden zu fegen, während die Mules in Bewegung sind. Verschiedne ‚mindere‘“ (Arbeiter an der Mule) „wurden“ (von den Fabrikinspektoren) „gerichtlich verfolgt und zu Geldstrafen verurteilt wegen dieses Vergehens, aber ohne irgendwelchen allgemeinen Vorteil. Wenn Maschinenmacher nur einen Selbstfeger erfinden wollten, durch dessen Gebrauch die Notwendigkeit für diese kleinen Kinder, unter die Maschinerie zu kriechen, wegfiel, so wäre das ein glücklicher Beitrag zu unsren Protektionsmaßregeln.“ „Reports of Insp. of Factories for 31st October 1866“, p. 63.)

↓ In a way a synthesis of the two above, how the division of labor is actually handled in the factory.

↓ Nevertheless in capitalism still the same kind of division of labor as in manufacture. This is a misuse, since not required because of specialization of labor. For the worker in the manufactories, it was a life-long specialty to perform one difficult function; in the factory it is the lifelong specialty to perform one and the same easy task which can be learned in a few days! This reduces value of labor-power not because of an increase in the products entering this value, but by taking away schooling from the workers. Like the separation of the unskilled from the skilled workers, this only serves to deprive a part of the working class of their education. More exploitation through relative surplus-value, but not through technical progress! The connections are not explicitly given, but from the division of labor we go now to the disintegration of the labor process dominated by machines into its components (nerves but no muscle, physical but no mental) and then the kind of organisation of the laborers going with that. Elaborate!

Note how a habit becomes a deliberate exploitation strategy.

425:1a Although then, technically speaking, the old system of division of labor is thrown overboard by machinery, it hangs on in the factory, as a traditional habit handed down from Manufacture, and is afterwards systematically re-moulded and established in a more hideous form by capital, as a means of exploiting labor-power. The life-

444:1/o Obgleich nun die Maschinerie das alte System der Teilung der Arbeit technisch über den Haufen wirft, schleppt es sich zunächst als Tradition der Manufaktur gewohnheitsmäßig in der Fabrik fort, um dann systematisch vom Kapital als Exploitationsmittel der Arbeitskraft in noch ekelhafter Form reproduziert und befestigt zu

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long speciality of handling one and the same tool, now becomes the life-long speciality of serving one and the same machine. Machinery is put to a wrong use, with the object of transforming the workman, from his very childhood, into a part of a detail-machine.¹⁸⁵ In this way, not only are the expenses of his reproduction considerably lessened, but at the same time his helpless dependence upon the factory as a whole, and therefore upon the capitalist, is rendered complete. Here as everywhere else, we must distinguish between the increased productiveness due to the development of the social process of production, and that due to the capitalist exploitation of that process.

¹⁸⁵ So much then for Proudhon's wonderful idea: he "construes" machinery not as a synthesis of instruments of labor, but as a synthesis of detail operations for the benefit of the laborer himself.

werden. Aus der lebenslangen Spezialität, ein Teilwerkzeug zu führen, wird die lebenslange Spezialität, einer Teilmaschine zu dienen. Die Maschinerie wird mißbraucht, um den Arbeiter selbst von Kindesbeinen in den Teil einer Teilmaschine zu verwandeln.¹⁸⁵ Nicht nur werden so die zu seiner eignen Reproduktion nötigen Kosten bedeutend vermindert, sondern zugleich seine hilflose Abhängigkeit vom Fabrikganzen, also vom Kapitalisten, vollendet. Hier wie überall muß man unterscheiden zwischen der größten Produktivität, die der Entwicklung des gesellschaftlichen Produktionsprozesses, und der größten Produktivität, die seiner kapitalistischen Ausbeutung geschuldet ist.

¹⁸⁵ Man würdige daher den fabelhaften Einfall Proudhons, der die Maschinerie nicht als Synthese von Arbeitsmitteln, sondern als Synthese von Teilarbeiten für die Arbeiter selbst—„konstruiert“.

Question 1017 *Explain how the machine system does away with the technical necessity (that was present in the manufactories) to chain the workers to a special task for their whole lives. Why is this practice nevertheless continued under capitalism?*

15.4.c. [Reversal and Disintegration of the Labor Process]

Now the labor process itself, its disintegration into its very elements. Machinery reverses the relation between worker and instrument of labor:

425:1b–425:2 In handicrafts and manufacture, the workman makes use of a tool, in the factory, the machine makes use of him. There the movements of the instrument of labor proceed from him, here it is the movements of the machine that he must follow.

⇓ Parallel inversion on a systemic level:

In manufacture the workmen are parts of a living mechanism. In the factory we have a lifeless mechanism independent of the workman, who becomes its mere living appendage.

⇓ Work under these conditions becomes torture.

“The miserable routine of endless drudgery and toil in which the same mechanical process is gone through over and over again, is like the labor of Sisyphus. The burden of la-

445:1–2 In Manufaktur und Handwerk bedient sich der Arbeiter des Werkzeugs, in der Fabrik dient er der Maschine. Dort geht von ihm die Bewegung des Arbeitsmittels aus, dessen Bewegung er hier zu folgen hat.

In der Manufaktur bilden die Arbeiter Glieder eines lebendigen Mechanismus. In der Fabrik existiert ein toter Mechanismus unabhängig von ihnen, und sie werden ihm als lebendige Anhängsel einverleibt.

„Der trübselige Schlendrian einer endlosen Arbeitsqual, worin derselbe mechanische Prozeß immer wieder durchgemacht wird, gleicht der Arbeit des Sisyphus; die Last der Arbeit,

bor, like the rock, keeps ever falling back on the worn-out laborer.”¹⁸⁶

¹⁸⁶ F. Engels, *I.c.*, p. 217. Even an ordinary and optimist Free-trader, like Mr. Molinari, goes so far as to say, “Un homme s’use plus vite en surveillant, quinze heures par jour, l’évolution uniforme d’un mécanisme, qu’en exerçant, dans le même espace de temps, sa force physique. Ce travail de surveillance qui servirait peut-être d’utile gymnastique à l’intelligence, s’il n’était pas trop prolongé, détruit à la longue, par son excès, et l’intelligence, et le corps même.” (G. de Molinari: “Études Économiques.” Paris, 1846.)

425:3–426:1 At the same time that factory work exhausts the nervous system to the uttermost, it does away with the many-sided play of the muscles, and confiscates every atom of freedom, both in bodily and intellectual activity.¹⁸⁷ The lightening of the labor, even, becomes a sort of torture, since the machine does not free the laborer from work, but deprives the work of all interest.

¹⁸⁷ F. Engels, *I.c.*, p. 216.

↓ What is already true in the valorization process becomes now also true in the labor process.

Every kind of capitalist production, in so far as it is not only a labor-process, but also a process of creating surplus-value, has this in common, that it is not the workman that employs the instruments of labor, but the instruments of labor that employ the workman. But it is only in the factory system that this inversion for the first time acquires technical and palpable reality. By means of its conversion into an automaton, the instrument of labor confronts the laborer, during the labor-process, in the shape of capital, of dead labor, that dominates, and pumps dry, living labor-power.

↓ First mention of the disintegration of the production process.

The separation of the intellectual powers of production from the manual labor, and the conversion of those powers into the might of capital over labor, is, as we have already shown, finally completed by modern industry erected on the foundation of machinery.

gleich dem Felsen, fällt immer wieder auf den abgematteten Arbeiter zurück.“¹⁸⁶

¹⁸⁶ F. Engels, „Lage etc.“, p. 217. Selbst ein ganz ordinärer, optimistischer Freihändler, Herr Molinar, bemerkt: „Ein Mann verbraucht sich schneller, wenn er täglich fünfzehn Stunden die gleichförmige Bewegung eines Mechanismus überwacht, als wenn er in derselben Zeitspanne seine physische Kraft gebraucht. Diese Arbeit der Überwachung, die vielleicht als eine nützliche Gymnastik für den Geist dienen könnte, wenn sie nicht zu lange ausgedehnt würde, zerstört auf die Dauer, durch ihr Übermaß, Geist und Körper zugleich.“ (G. de Molinari, „Études Économiques“, Paris 1846, [p. 49].)

445:3–446:1 Während die Maschinenarbeit das Nervensystem aufs äußerste angreift, unterdrückt sie das vielseitige Spiel der Muskeln und konfisziert alle freie körperliche und geistige Tätigkeit.¹⁸⁷ Selbst die Erleichterung der Arbeit wird zum Mittel der Tortur, indem die Maschine nicht den Arbeiter von der Arbeit befreit, sondern seine Arbeit vom Inhalt.

¹⁸⁷ F. Engels, *I.c.*, p. 216.

↓ What is already true in the valorization process becomes now also true in the labor process.

Aller kapitalistischen Produktion, soweit sie nicht nur Arbeitsprozeß, sondern zugleich Verwertungsprozeß des Kapitals, ist es gemeinsam, daß nicht der Arbeiter die Arbeitsbedingung, sondern umgekehrt die Arbeitsbedingung den Arbeiter anwendet, aber erst mit der Maschinerie erhält diese Verkehrung technisch handgreifliche Wirklichkeit. Durch seine Verwandlung in einen Automaten tritt das Arbeitsmittel während des Arbeitsprozesses selbst dem Arbeiter als Kapital gegenüber, als tote Arbeit, welche die lebendige Arbeitskraft beherrscht und aussaugt.

↓ First mention of the disintegration of the production process.

Die Scheidung der geistigen Potenzen des Produktionsprozesses von der Handarbeit und die Verwandlung derselben in Mächte des Kapitals über die Arbeit vollendet sich, wie bereits früher angedeutet, in der auf Grundlage der Maschinerie aufgebauten

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The special skill of each individual insignificant factory operative vanishes as an infinitesimal quantity before the science, the gigantic physical forces, and the mass of labor that are embodied in the factory mechanism and, together with that mechanism, constitute the power of the “master.” This “master,” therefore, in whose brain the machinery and his monopoly of it are inseparably united, whenever he falls out with his “hands,” contemptuously tells them:

“The factory operatives should keep in wholesome remembrance the fact that theirs is really a low species of skilled labor; and that there is none which is more easily acquired, or of its quality more amply remunerated, or which by a short training of the least expert can be more quickly, as well as abundantly, acquired ... The master’s machinery really plays a far more important part in the business of production than the labor and the skill of the operative, which six months’ education can teach, and a common laborer can learn.”¹⁸⁸

¹⁸⁸ “The Master Spinners’ and Manufacturers’ Defence Fund. Report of the Committee.” Manchester, 1854, p. 17. We shall see hereafter, that the “master” can sing quite another song, when he is threatened with the loss of his “living” automaton.

Military discipline *created* by factory work.

The technical subordination of the workman to the uniform motion of the instruments of labor, and the peculiar composition of the body of workpeople, consisting as it does of individuals of both sexes and of all ages, give rise to a barrack discipline, which is elaborated into a complete sys-

großen Industrie. Das Detailgeschick des individuellen, entleerten Maschinenarbeiters verschwindet als ein winzig Nebending vor der Wissenschaft, den ungeheuren Naturkräften und der gesellschaftlichen Massenarbeit, die im Maschinensystem verkörpert sind und mit ihm die Macht des „Meisters“ (master) bilden. Dieser Meister, in dessen Hirn die Maschinerie und sein Monopol an derselben unzertrennlich verwachsen sind, ruft daher in Kollisionsfällen den „Händen“ verächtlich zu:

„Die Fabrikarbeiter sollten in heilsamer Erinnerung halten, daß ihre Arbeit in der Tat eine sehr niedrige Sorte geschickter Arbeit ist; daß keine leichter aneignbar und in Anbetracht ihrer Qualität besser belohnt ist, daß keine durch kurze Unterweisung des mindest Erfahrenen in so kurzer Zeit und in solchem Überfluß zugeführt werden kann. Des Meisters Maschinerie spielt in der Tat eine viel wichtigere Rolle in dem Geschäfte der Produktion als die Arbeit und das Geschick des Arbeiters, die eine Erziehung von 6 Monaten lehren und jeder Bauernknecht lernen kann.“¹⁸⁸

¹⁸⁸ „The factory operatives should keep in wholesome remembrance the fact that theirs is really a low species of skilled labour; and that there is none which is more easily acquired or of its quality more amply remunerated, or which, by a short training of the least expert can be more quickly as well as abundantly acquired ... The master’s machinery really plays a far more important part in the business of production than the labour and the skill of the operative, which six months’ education can teach, and a common labourer can learn.“ (The Master Spinners’ and Manufacturers’ Defence Fund. Report of the Committee“, Manchester 1854, p. 17.) Man wird später sehen, daß der „Master“ aus einem andern Loch pfeift, sobald er mit Verlust seiner „lebendigen“ Automaten bedroht ist.

446:2–447:1 Die technische Unterordnung des Arbeiters unter den gleichförmigen Gang des Arbeitsmittels und die eigentümliche Zusammensetzung des Arbeitskörpers aus Individuen beider Geschlechter und verschiedenster Altersstufen schaffen eine kasernenmäßige Disziplin, die sich

tem in the factory, and which fully develops the before mentioned labor of overlooking, thereby dividing the workpeople into operatives and overlookers, into private soldiers and sergeants of an industrial army.

“The main difficulty [in the automatic factory] ... lay ... above all in training human beings to renounce their desultory habits of work, and to identify themselves with the unvarying regularity of the complex automaton. To devise and administer a successful code of factory discipline, suited to the necessities of factory diligence, was the Herculean enterprise, the noble achievement of Arkwright! Even at the present day, when the system is perfectly organised and its labor lightened to the utmost, it is found nearly impossible to convert persons past the age of puberty, into useful factory hands.”¹⁸⁹

¹⁸⁹ Ure, l.c., p. 15. Whoever knows the life history of Arkwright, will never dub this barber-genius “noble.” Of all the great inventors of the 18th century, he was incontestably the greatest thief of other people’s inventions and the meanest fellow.

zum vollständigen Fabrikregime ausbildet und die schon früher erwähnte Arbeit der Obergewalt, also zugleich die Teilung der Arbeiter in Handarbeiter und Arbeitsaufseher, in gemeine Industriesoldaten und Industrieunteroffiziere, völlig entwickelt.

„Die Hauptschwierigkeit in der automatischen Fabrik bestand in der notwendigen Disziplin, um die Menschen auf ihre unregelmäßigen Gewohnheiten in der Arbeit verzichten zu machen und sie zu identifizieren mit der unveränderlichen Regelmäßigkeit des großen Automaten. Aber einen den Bedürfnissen und der Geschwindigkeit des automatischen Systems entsprechenden Disziplinarkodex zu erfinden und mit Erfolg auszuführen war ein Unternehmen, des Herkules würdig, das ist das edle Werk Arkwrights! Selbst heutzutage, wo das System in seiner ganzen Vollen- dung organisiert ist, ist es fast unmöglich, unter den Arbeitern, die das Alter der Mannbarkeit zurückgelegt haben, nützliche Gehilfen für das automatische System zu finden.“¹⁸⁹

¹⁸⁹ Ure, l.c. p. 15. Wer Arkwrights Lebensgeschichte kennt, wird das Wort „edel“ diesem genialen Barbier nie an den Kopf werfen. Von allen großen Erfindern des 18. Jahrhunderts war er un- streitig der größte Dieb fremder Erfindungen und der gemeinste Kerl.

[Factory Codes: Private Autocratic Legislation]

Social regulation of the labor process takes an undemocratic form:

The factory code in which capital formulates, like a private legislator, and at his own good will, his autocracy over his workpeople, unaccompanied by that separation of powers, otherwise so much approved of by the bourgeoisie, and unaccompanied by the even more approved representative system, this code is but the capitalistic caricature of that social regulation of the labor-process which becomes requisite in co-operation on a great scale, and in the employment in common, of instruments of labor and especially of machinery.

The form of punishment is especially revealing:

The place of the slave-driver’s lash is taken by the overlooker’s book of penalties. All

447:2 Der Fabrikkodex, worin das Kapital seine Autokratie über seine Arbeiter, ohne die sonst vom Bürgertum so beliebte Teilung der Gewalten und das noch beliebtere Repräsentativsystem, privatgesetzlich und eigenherrlich formuliert, ist nur die kapitalistische Karikatur der gesellschaftlichen Regelung des Arbeitsprozesses, welche nötig wird mit der Kooperation auf großer Stufenleiter und der Anwendung gemeinsamer Arbeitsmittel, namentlich der Maschinerie.

An die Stelle der Peitsche des Sklaventreibers tritt das Strafbuch des Aufsehers. Alle

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punishments resolve themselves of course into fines and deductions from wages, and the law-giving talent of the factory Lycurgus so arranges matters, that a violation of his laws is, if possible, more profitable to him than the keeping of them.¹⁹⁰

Footnote begins with a long quote from Engels:

¹⁹⁰ "The slavery in which the bourgeoisie has bound the proletariat, comes nowhere more plainly into daylight than in the factory system. In it all freedom comes to an end both at law and in fact. The workman must be in the factory at half past five. If he come a few minutes late, he is punished; if he come 10 minutes late, he is not allowed to enter until after breakfast, and thus loses a quarter of a day's wage. He must eat, drink and sleep at word of command . . . The despotic bell calls him from his bed, calls him from breakfast and dinner. And how does he fare in the mill? There the master is the absolute law-giver. He makes what regulations he pleases; he alters and makes additions to his code at pleasure; and if he insert the veriest nonsense, the courts say to the workman: Since you have entered into this contract voluntarily, you must now carry it out . . . These workmen are condemned to live, from their ninth year till their death, under this mental and bodily torture." (F. Engels, l.c., p. 217, sq.)

Strafen lösen sich natürlich auf in Geldstrafen und Lohnabzüge, und der gesetzgeberische Scharfsinn der Fabrik-Lykurge macht ihnen die Verletzung ihrer Gesetze womöglich noch einbringlicher als deren Befolgung.¹⁹⁰

¹⁹⁰ „Die Sklaverei, in der die Bourgeoisie das Proletariat gefesselt hält, kommt nirgends deutlicher ans Tageslicht als im Fabrikssystem. Hier hört alle Freiheit rechtlich und faktisch auf. Der Arbeiter muß morgens um halb 6 in der Fabrik sein; kommt er ein paar Minuten zu spät, so wird er gestraft, kommt er 10 Minuten zu spät, so wird er gar nicht hereingelassen, bis das Frühstück vorüber ist, und verliert einen Vierteltag am Lohn. Er muß auf Kommando essen, trinken und schlafen . . . Die despoticische Glocke ruft ihn vom Bette, ruft ihn vom Frühstück und Mittagstisch. Und wie geht es nun gar erst in der Fabrik? Hier ist der Fabrikant absoluter Gesetzgeber. Er erläßt Fabrikregulationen, wie er Lust hat; er ändert und macht Zusätze zu seinem Kodex, wie es ihm beliebt; und wenn er das tollste Zeug hineinsetzt, so sagen doch die Gerichte zum Arbeiter: Da ihr unter diesen Kontrakt euch freiwillig begeben habt, jetzt müßt ihr ihn auch befolgen . . . Diese Arbeiter sind dazu verdammt, vom neunten Jahr bis zu ihrem Tode unter der geistigen und körperlichen Fuchtel zu leben.“ (F. Engels, l.c. p. 217 sqq.)

↓ Private despotism by the capitalists supported by the court system:

What "the courts say," I will illustrate by two examples. One occurs at Sheffield at the end of 1866. In that town a workman had engaged himself for 2 years in a steel-works. In consequence of a quarrel with his employer he left the works, and declared that under no circumstances would he work for that master any more. He was prosecuted for breach of contract, and condemned to two months' imprisonment. (If the master break the contract, he can be proceeded against only in a civil action, and risks nothing but money damages.) After the workman has served his two months, the master invites him to return to the works, pursuant to the contract. Workman says: No, he has already been punished for the breach.

Was „die Gerichte sagen“, will ich an zwei Beispielen erläutern. Der eine Fall spielt in Sheffield, Ende 1866. Dort hatte sich ein Arbeiter für 2 Jahre in eine Metallfabrik verdingt. Infolge eines Zwistes mit dem Fabrikanten verließ er die Fabrik und erklärte, unter keinen Umständen mehr für ihn arbeiten zu wollen. Wurde wegen Kontraktbruchs verklagt, zu zwei Monaten Gefängnis verurteilt. (Bricht der Fabrikant den Kontrakt, so kann er nur civiliter verklagt werden und riskiert nur eine Geldbuße.) Nach Absitzen der zwei Monate stellt derselbe Fabrikant ihm Ladung zu, dem alten Kontrakt gemäß in die Fabrik zurückzukehren. Arbeiter erklärt: Nein. Den Kontraktsbruch habe er bereits abgebußt. Fabrikant verklagt

The master prosecutes again, the court condemns again, although one of the judges, Mr. Shee, publicly denounces this as a legal monstrosity, by which a man can periodically, as long as he lives, be punished over and over again for the same offence or crime. This judgment was given not by the "Great Unpaid," the provincial Dogberries, but by one of the highest courts of justice in London.—{Added in the 4th German edition.—This has now been done away with. With few exceptions, e.g., when public gas-works are involved, the worker in England is now put on an equal footing with the employer in case of breach of contract and can be sued only civilly.—F. E.} The second case occurs in Wiltshire at the end of November 1863. About 30 power-loom weavers, in the employment of one Harrup, a cloth manufacturer at Leower's Mill, Westbury Leigh, struck work because master Harrup indulged in the agreeable habit of making deductions from their wages for being late in the morning; 6d. for 2 minutes; 1s. for 3 minutes, and 1s. 6d. for ten minutes. This is at the rate of 9s. per hour, and £4 10s. 0d. per diem; while the wages of the weavers on the average of a year, never exceeded 10s. to 12s. weekly. Harrup also appointed a boy to announce the starting time by a whistle, which he often did before six o'clock in the morning: and if the hands were not all there at the moment the whistle ceased, the doors were closed, and those hands who were outside were fined: and as there was no clock on the premises, the unfortunate hands were at the mercy of the young Harrup-inspired time-keeper. The hands on strike, mothers of families as well as girls, offered to resume work if the time-keeper were replaced by a clock, and a more reasonable scale of fines were introduced. Harrup summoned 19 women and girls before the magistrates for breach of contract. To the utter indignation of all present, they were each mulcted in a fine of 6d. and 2s. 6d. for costs. Harrup was followed from the court by a crowd of people who hissed

von neuem, Gericht verurteilt von neuem, obgleich einer der Richter, Mr. Shee, dies öffentlich als juristische Ungeheuerlichkeit denunziert, wonach ein Mann sein ganzes Leben durch periodisch für dasselbe identische Vergehn, resp. Verbrechen, wieder und wieder bestraft werden könne. Dieses Urteil wurde gefällt nicht von den „Great Unpaid“, provinziellen Dogberries, sondern zu London, von einem der höchsten Gerichtshöfe. {Zur 4. Aufl.—Dies ist jetzt abgeschafft. Einige wenige Fälle ausgenommen—z.B. bei öffentlichen Gaswerken—, ist jetzt in England der Arbeiter beim Kontraktbruch dem Beschäftigten gleichgestellt und kann nur zivilrechtlich belangt werden.—F.E.}—Der zweite Fall spielt in Wiltshire, Ende November 1863. Ungefähr 30 Dampfstuhlweberrinnen, in der Beschäftigung eines gewissen Harrupp, Tuchfabrikant von Leower's Mill, Westbury Leigh, machten einen strike, weil dieser selbe Harrupp die angenehme Gewohnheit hatte, ihnen für Verspätung am Morgen Lohnabzug zu machen, und zwar 6 d. für 2 Minuten, 1 sh. für 3 Minuten und 1 sh. 6 d. für 10 Minuten. Dies macht bei 9 sh. per Stunde 4 Pfd.St. 10 sh. per Tag, während ihr Durchschnittslohn im Jahr nie über 10 bis 12 sh. wöchentlich steigt. Harrupp hat ebenfalls einen Jungen bestellt, um die Fabrikstunde zu blasen, was er selber manchmal vor 6 Uhr morgens tut, und wenn die Hände nicht grade da sind, sobald er aufhört, werden die Tore geschlossen und die draußen in Geldbuße genommen; und da keine Uhr im Gebäude, sind die unglücklichen Hände in der Gewalt des von Harrupp inspirierten jugendlichen Zeitwächters. Die im „strike“ begriffnen Hände, Familienmütter und Mädchen, erklärten, sie wollten wieder ans Werk gehn, wenn der Zeitwächter durch eine Uhr ersetzt und ein rationeller Straftarif eingeführt würde. Harrupp zitierte 19 Weiber und Mädchen vor die Magistrate wegen Kontraktsbruch. Sie wurden verurteilt zu je 6 d. Strafe und 2 sh. 6 d. Kosten, unter lauter Entrüstung des Auditoriums. Harrupp

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him. A favourite operation with manufacturers is to punish the workpeople by deductions made from their wages on account of faults in the material worked on. This method gave rise in 1866 to a general strike in the English pottery districts. The reports of the Ch. Empl. Comm. (1863–1866), give cases where the worker not only receives no wages, but becomes, by means of his labor, and of the penal regulations, the debtor to boot, of his worthy master. The late cotton crisis also furnished edifying examples of the sagacity shown by the factory autocrats in making deductions from wages. Mr. R. Baker, the Inspector of Factories, says, “I have myself had lately to direct prosecutions against one cotton mill occupier for having in these pinching and painful times deducted 10d. a piece from some of the young workers employed by him, for the surgeon’s certificate (for which he himself had only paid 6d.), when only allowed by the law to deduct 3d., and by custom nothing at all . . . And I have been informed of another, who, in order to keep without the law, but to attain the same object, charges the poor children who work for him a shilling each, as a fee for learning them the art and mystery of cotton spinning, so soon as they are declared by the surgeon fit and proper persons for that occupation. There may therefore be undercurrent causes for such extraordinary exhibitions as strikes, not only wherever they arise, but particularly at such times as the present, which without explanation, render them inexplicable to the public understanding.” He alludes here to a strike of powerloom weavers at Darwen, June, 1863. (“Reports of Insp. of Fact. for 30 April, 1863,” pp. 50–51.) The reports always go beyond their official dates.

wurde vom Gericht weg von einer zischen- den Volksmasse begleitet.—Eine Liebling- soperation der Fabrikanten ist, die Arbeiter durch Lohnabzüge für die Fehler des ihnen gelieferten Materials zu züchtigen. Diese Methode rief 1866 allgemeinen stri- ke in den englischen Töpferdistrikten her- vor. Die Berichte der „Ch. Empl. Com- miss.“ (1863–1866) geben Fälle, wo der Ar- beiter, statt Lohn zu erhalten, durch seine Arbeit, und vermittelt des Strafrelements, noch obendrein Schuldner seines erlauch- ten „Master“ wird. Erbauliche Züge über den Lohnabzugs-Scharfsinn der Fabrikauto- kraten lieferte auch die jüngste Baumwoll- krise. „Ich hatte selbst“, sagt Fabrikinspek- tor R. Baker, „vor kurzem gerichtliche Ver- folgung wider einen Baumwollfabrikanten einzuleiten, weil er in diesen schweren und qualvollen Zeitläuften 10 d. von einigen der von ihm beschäftigten ‚jungen‘“ (mehr als dreizehnjährigen) „Arbeiter abzog für das ärztliche Alterszertifikat, das ihm nur 6 d. kostet und wofür das Gesetz nur einen Ab- zug von 3 d., das Herkommen gar keinen erlaubt . . . Ein anderer Fabrikant, um densel- ben Zweck ohne Konflikt mit dem Gesetz zu erreichen, belastet jedes der armen Kin- der, die für ihn arbeiten, mit einem Shilling als Sportel für Erlernung der Kunst und des Mysteriums, zu spinnen, sobald das ärztli- che Zeugnis sie reif für diese Beschäftigung erklärt. Es existieren also Unterströmungen, die man kennen muß, um solche außeror- dentliche Phänomene, wie strikes zu Zeiten wie die gegenwärtige“ (es handelt sich um einen strike in der Fabrik zu Darwen, Ju- ni 1863, unter den Maschinenwebern) „zu begreifen.“ „Reports of Insp. of Fact. for 30th April 1863“, p. 50, 51.) (Die Fabrikbe- richte gehn immer weiter als ihr offizielles Datum.)

[Health, Safety, Comfort at Work Place]

Work places unsafe and unhealthy:

428/00 We shall here merely allude to the material conditions under which factory labor is carried on. Every organ of sense is injured in an equal degree by artificial elevation of the temperature, by the dust-laden atmosphere, by the deafening noise, not to mention danger to life and limb among the thickly crowded machinery, which, with the regularity of the seasons, issues its list of the killed and wounded in the industrial battle.^{190a}

^{190a} The protection afforded by the Factory Acts against dangerous machinery has had a beneficial effect. "But . . . there are other sources of accident which did not exist twenty years since; one especially, viz., the increased speed of the machinery. Wheels, rollers, spindles and shuttles are now propelled at increased and increasing rates; fingers must be quicker and defter in their movements to take up the broken thread, for, if placed with hesitation or carelessness, they are sacrificed. . . A large number of accidents are caused by the eagerness of the workpeople to get through their work expeditiously. It must be remembered that it is of the highest importance to manufacturers that their machinery should be in motion, i.e., producing yams and goods. Every minute's stoppage is not only a loss of power, but of production, and the workpeople are urged by the overlookers, who are interested in the quantity of work turned off, to keep the machinery in motion, and it is no less important to those of the operatives who are paid by the weight or piece, that the machines should be kept in motion. Consequently, although it is strictly forbidden in many, nay in most factories, that machinery should be cleaned while in motion, it is nevertheless the constant practice in most, if not in all, that the workpeople do, unproved, pick out waste, wipe rollers and wheels, etc., while their frames are in motion. Thus from this cause only, 906 accidents have occurred during the six months. . . Although a great deal of cleaning is constantly going on day by day, yet Saturday is generally the day set apart for the thorough cleaning of the machinery, and a great deal of this is done while the machinery is in motion." Since cleaning is not paid for, the workpeople seek to get done with it as speedily as possible. Hence "the number of accidents which occur on Fridays, and especially on Saturdays, is much larger

448/00 Wir deuten nur hin auf die materiellen Bedingungen, unter denen die Fabrikarbeit verrichtet wird. Alle Sinnesorgane werden gleichmäßig verletzt durch die künstlich gesteigerte Temperatur, die mit Abfällen des Rohmaterials geschwängerte Atmosphäre, den betäubenden Lärm usw., abgesehen von der Lebensgefahr unter dicht gehäufte Maschinerie, die mit der Regelmäßigkeit der Jahreszeiten ihre industriellen Schlachtbulletins produziert.^{190a}

^{190a} Die Gesetze zum Schutz gegen gefährliche Maschinerie haben wohlthätig gewirkt. „Aber . . . es existieren jetzt neue Quellen von Unglücksfällen, die vor 20 Jahren nicht existiert haben, namentlich die vermehrte Geschwindigkeit der Maschinerie. Räder, Walzen, Spindeln und Webstühle werden jetzt mit vermehrter und stets noch wachsender Gewalt getrieben; die Finger müssen rascher und sichrer den gebrochenen Faden anpacken, denn wenn mit Zaudern oder Unvorsicht angelegt, sind sie geopfert . . . Eine große Anzahl Unglücksfälle wird verursacht durch den Eifer der Arbeiter, ihr Werk rasch auszuführen. Man muß sich erinnern, daß es für die Fabrikanten von der höchsten Wichtigkeit ist, ihre Maschinerie ununterbrochen in Bewegung zu halten, d.h. Garn und Geweb zu produzieren. Jeder Stillstand von einer Minute ist nicht nur ein Verlust an Triebkraft, sondern an Produktion. Die Arbeiter werden daher durch Arbeitsaufseher, interessiert in der Quantität des Machwerks, dazu gehetzt, die Maschinerie in Bewegung zu halten; und es ist dies nicht minder wichtig für Arbeiter, die nach Gewicht oder Stück gezahlt werden. Obgleich es daher in den meisten Fabriken formell verboten ist, Maschinerie während ihrer Bewegung zu reinigen, ist diese Praxis allgemein. Diese Ursache allein hat während der letzten 6 Monate 906 Unglücksfälle produziert . . . Obgleich das Reinigungsgeschäft tagaus, tagein vorgeht, ist der Sonnabend jedoch meist für gründliches Reinigen der Maschinerie festgesetzt, und das geschieht größtenteils während der Bewegung der Maschinerie . . . Es ist eine unbezahlte Operation, und die Arbeiter suchen daher so rasch als möglich damit fertig zu werden. Daher ist die Anzahl der Unglücksfälle freitags und ganz besonders samstags viel größer als an den übrigen Wochentagen. Freitags beträgt der Überschuß über die Durchschnittszahl der ersten 4 Wochen-

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than on any other day. On the former day the excess is nearly 12 per cent. over the average number of the four first days of the week, and on the latter day the excess is 25 per cent. over the average of the preceding five days; or, if the number of working-hours on Saturday being taken into account—7 1/2 hours on Saturday as compared with 10 1/2 on other days—there is an excess of 65 per cent. on Saturdays over the average of the other five days.” (“Rep. of Insp. of Fact., 31st Oct., 1866,” pp. 9, 15, 16, 17.)

Economy of means of production, which was introduced in . . .

Economy of the social means of production, matured and forced as in a hothouse by the factory system, is turned, in the hands of capital, into systematic robbery of what is necessary for the life of the workman while he is at work, robbery of space, light, air, and of protection to his person against the dangerous and unwholesome accompaniments of the productive process, not to mention the robbery of appliances for the comfort of the workman.¹⁹¹ Is Fourier wrong when he calls factories “tempered bagnos”?¹⁹²

Announcement of *Capital III*, where?

¹⁹¹ In Part I. of Book III. I shall give an account of a recent campaign by the English manufacturers against the Clauses in the Factory Acts that protect the “hands” against dangerous machinery. For the present, let this one quotation from the official report of Leonard Horner suffice: “I have heard some mill-owners speak with inexcusable levity of some of the accidents; such, for instance, as the loss of a finger being a trifling matter. A working-man’s living and prospects depend so much upon his fingers, that any loss of them is a very serious matter to him. When I have heard such inconsiderate remarks made, I have usually put this question: Suppose you were in want of an additional workman, and two were to apply, both equally well qualified in other respects, but one had lost a thumb or a forefinger, which would you engage? There never was a hesitation as to the answer. . . .” The manufacturers have “mistaken prejudices against what they have heard represented as a pseudo-philanthropic legislation.” (“Rep. of Insp. of Fact., 31st Oct., 1855.”) These manufacturers are clever folk, and not without reason were they enthusiastic for the

tage ungefähr 12%, sonntags der Überschuß von Unglücksfällen über den Durchschnitt der vorhergehenden 5 Tage 25%; zieht man aber in Rechnung, daß der Fabriktag samstags nur 7 1/2 Stunden, an den übrigen Wochentagen 10 1/2 Stunden zählt—so steigt der Überschuß um mehr als 65%.“ „Reports of Insp. of Factories for etc. 31st October 1866“, London 1867, p. 9, 15, 16, 17.)

Die Ökonomisierung der gesellschaftlichen Produktionsmittel, erst im Fabrikssystem treibhausmäßig gereift, wird in der Hand des Kapitals zugleich zum systematischen Raub an den Lebensbedingungen des Arbeiters während der Arbeit, an Raum, Luft, Licht, und an persönlichen Schutzmitteln wider lebensgefährliche oder gesundheitswidrige Umstände des Produktionsprozesses, von Vorrichtungen zur Bequemlichkeit des Arbeiters gar nicht zu sprechen.¹⁹¹ Nennt Fourier mit Unrecht die Fabriken „gemilderte Bagnos“?¹⁹²

¹⁹¹ Im ersten Abschnitt des Dritten Buchs werde ich berichten über einen jüngster Zeit angehörigen Feldzug der englischen Fabrikanten gegen die Klauseln des Fabrikakts zum Schutz der Gliedmaßen der „Hände“ vor lebensgefährlicher Maschinerie. Hier genüge ein Zitat aus einem offiziellen Bericht des Fabrikinspektors Leonard Horner: „Ich habe Fabrikanten mit unentschuldbarer Frivolität von einigen der Unglücksfälle sprechen hören, z.B. der Verlust eines Fingers sei eine Kleinigkeit. Das Leben und die Aussichten eines Arbeiters hängen so sehr von seinen Fingern ab, daß ein solcher Verlust ein äußerst ernstes Ereignis für ihn ist. Wenn ich solch gedankenlos Geschwätz höre, stelle ich die Frage: Unterstellt, Sie brauchen einen zusätzlichen Arbeiter, und ihrer zwei meldeten sich, beide in jeder andren Hinsicht gleich tüchtig, aber der eine ohne Daumen oder Vorfinger, welchen würden Sie wählen? Sie zögerten nie einen Augenblick, für den Vollfingrigen zu entscheiden . . . Diese Herrn Fabrikanten haben falsche Vorurteile gegen das, was sie pseudo-philanthropische Gesetzgebung nennen.“ „Reports of Insp. of

slave-holders' rebellion.

¹⁹² In those factories that have been longest subject to the Factory Acts, with their compulsory limitation of the hours of labor, and other regulations, many of the older abuses have vanished. The very improvement of the machinery demands to a certain extent "improved construction of the buildings," and this is an advantage to the workpeople. (See "Rep. of Insp. of Fact. for 31st Oct., 1863," p. 109.)

Fact. for 31st Oct. 1855", [p. 6/7].) Diese Herrn sind „gescheite Leut“ und schwärmen nicht umsonst für die Sklavenhalter-Rebellion!

¹⁹² In den Fabriken, die am längsten dem Fabrikakt mit seiner Zwangsbeschränkung der Arbeitszeit und seinen sonstigen Regulationen unterworfen, sind manche frühere Mißstände verschwunden. Die Verbesserung der Maschinerie selbst erheischt auf einem gewissen Punkt eine „verbesserte Konstruktion der Fabrikgebäude“, die den Arbeitern zugut kommt. (cf. „Reports etc. for 31st Oct. 1863“, p. 109.)

15.5. Strife between Worker and Machine

The conditions described in (4) elicit resistance. Marx investigates the development of the forms of this resistance with the same historical depth as he has investigated the development of the forms of machinery itself. The main issue to be explained here is the Luddite movement and other spontaneous conflicts where workers destroyed the machines. Marx places this resistance in the context of the general class struggle between capitalist and worker and asks specifically why class struggle is taking this form at this time.

430:1 The contest between the capitalist and the wage-laborer dates back to the very origin of capital. It raged on throughout the whole period of manufactories.¹⁹³

¹⁹³ See amongst others, John Houghton: "Husbandry and Trade Improved." London, 1727. "The Advantages of the East India Trade, 1720." John Bellers, l.c. "The masters and their workmen are, unhappily, in a perpetual war with each other. The invariable object of the former is to get their work done as cheaply as possible; and they do not fail to employ every artifice to this purpose, whilst the latter are equally attentive to every occasion of distressing their masters into a compliance with higher demands." ("An Enquiry into the Causes of the Present High Price of Provisions," pp. 61–62. Author: the Rev. Nathaniel Forster, completely on the side of the workers.)

451:1 Der Kampf zwischen Kapitalist und Lohnarbeiter beginnt mit dem Kapitalverhältnis selbst. Er tobt fort während der ganzen Manufakturperiode.¹⁹³

¹⁹³ Sieh u.a. John Houghton, „Husbandry and Trade improved“, Lond. 1727. „The Advantages of the East India Trade“, 1720. John Bellers, l.c. „Die Meister und die Arbeiter befinden sich unglücklicherweise in ewigem Kriegszustand miteinander. Jene haben das unveränderliche Ziel, ihre Arbeit so billig wie möglich getan zu erhalten; und sie zögern nicht, zu diesem Zweck jede List anzuwenden, während diese ebenso darauf bedacht sind, bei jeder Gelegenheit ihre Meister zur Erfüllung ihrer höheren Forderungen zu zwingen.“ „An Inquiry into the causes of the Present High Prices of Provisions“, 1767, p. 61, 62. (Verf. Rev. Nathaniel Forster, ganz auf Seite der Arbeiter.)

In particular Marx compares the "strife between worker and machine" with the strife between workers and capitalists in the period of the manufactories.

Regarding machinery he starts with the most striking form of this strife, the destruction of machines, which he sees from the beginning as an indirect fight against capital:

But only since the introduction of machinery has the workman fought against the instrument of labor itself, the material embodiment of capital. He revolts against this particular form of the means of production,

Aber erst seit der Einführung der Maschinerie bekämpft der Arbeiter das Arbeitsmittel selbst, die materielle Existenzweise des Kapitals. Er revoltiert gegen diese bestimmte Form des Produktionsmittels als die materi-

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as being the material basis of the capitalist mode of production.

elle Grundlage der kapitalistischen Produktionsweise.

Question 1018 *Why did workers revolt against the introduction of the early machines, although they had not resisted the introduction of the manufactories?*

First a brief historical sketch: precursors of Luddites in the 17th century was the suppression of the ribbon loom.

430:2–432:0 In the 17th century nearly all Europe experienced revolts of the workpeople against the ribbon-loom, a machine for weaving ribbons and trimmings, called in Germany Bandmühle, Schnurmühle, and Mühlenstuhl.

451:2/o Ziemlich ganz Europa erlebte während des 17. Jahrhunderts Arbeiterrevolten gegen die sog. Bandmühle (auch Schnurmühle oder Mühlenstuhl genannt), eine Maschine zum Weben von Bändern und Borten.¹⁹⁴

Footnote 194 gives more detail about the ribbon loom. Not only the workers revolted; local governments tried to prohibit and regulate them. In the Moore-Aveling translation this footnote is part of the main text:

¹⁹⁴ These machines were invented in Germany. Abbé Lancellotti, in a work that appeared in Venice in 1636, but which was written in 1579, says as follows: “Anthony Müller of Danzig saw about 50 years ago in that town, a very ingenious machine, which weaves 4 to 6 pieces at once. But the Mayor being apprehensive that this invention might throw a large number of workmen on the streets, caused the inventor to be secretly strangled or drowned.” In Leyden, this machine was not used till 1629; there the riots of the ribbon-weavers at length compelled the Town Council to prohibit it. “In hac urbe,” says Boxhorn (Inst. Pol., 1663), referring to the introduction of this machine into Leyden, “ante hos viginti circiter annos instrumentum quidam invenerunt textorium, quo solus plus panni et facilius conficere poterat, quan plures aequali tempore. Hinc turbæ ortæ et querulæ textorum, tandemque usus hujus instrumenti a magistratu prohibitus est.” After making various decrees more or less prohibitive against this loom in 1632, 1639, etc., the States General of Holland at length permitted it to be used, under certain conditions, by the decree of the 15th December, 1661. It was also prohibited in Cologne in 1676, at the same time that its introduction into England was causing disturbances among the workpeople. By an imperial Edict of 19th Feb., 1685, its use was forbidden throughout all Germany. In Hamburg it was burnt in public by order of the Senate. The Emperor Charles VI., on 9th Feb., 1719, renewed the edict of 1685, and not till 1765 was its use openly allowed in the Electorate of Saxony.

¹⁹⁴ Die Bandmühle ward in Deutschland erfunden. Der italienische Abbé Lancellotti in einer Schrift, die 1636 zu Venedig erschien, erzählt: „Anton Müller aus Danzig habe vor ungefähr 50 Jahren“ (L. schrieb 1629) „eine sehr künstliche Maschine in Danzig gesehn, die 4–6 Gewebe auf einmal verfertigte; weil der Stadtrat aber besorgt habe, diese Erfindung möchte eine Masse Arbeiter zu Bettlern machen, so habe er die Erfindung unterdrückt und den Erfinder heimlich ersticken oder ersäufen lassen.“ In Leyden wurde dieselbe Maschine zuerst 1629 angewandt. Die Emeuten der Bortenwirker zwangen den Magistrat erst zu ihrem Verbot; durch verschiedene Verordnungen von 1623, 1639 usw. von seiten der Generalstaaten sollte ihr Gebrauch beschränkt werden; endlich erlaubt, unter gewissen Bedingungen, durch Verordnung vom 15. Dezember 1661. „In dieser Stadt“, sagt Boxhorn („Inst. Pol.“, 1663) von der Einführung der Bandmühle in Leyden, „erfanden vor ungefähr zwanzig Jahren irgendwelche Leute ein Instrument zum Weben, mit dem ein einzelner mehr und leichter Gewebe herstellen konnte, als sonst mehrere in der gleichen Zeit. Dadurch kam es zu Unruhen und zu Klagen der Weber, bis der Gebrauch dieses Instruments vom Magistrat verboten wurde.“ Dieselbe Maschine ward 1676 in Köln verboten, während ihre Einführung in England gleichzeitige Arbeiterunruhen hervorrief. Durch kaiserliches Edikt vom 19. Februar 1685 wurde ihr Gebrauch in ganz Deutschland untersagt. In Hamburg wurde sie öffentlich auf Befehl des Magistrats verbrannt. Karl VI. er-

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neuerte 9. Februar 1719 das Edikt von 1685, und Kursachsen erlaubte ihren öffentlichen Gebrauch erst 1765.

Marx ends his discussion of the ribbon loom with a brief description of its technology:

^{194 ctd} This machine, which shook Europe to its foundations, was in fact the precursor of the mule and the power-loom, and of the industrial revolution of the 18th century. It enabled a totally inexperienced boy, to set the whole loom with all its shuttles in motion, by simply moving a rod backwards and forwards, and in its improved form produced from 40 to 50 pieces at once.

^{194 ctd} Diese Maschine, die so viel Lärm in der Welt gemacht hat, war in der Tat Vorläufer der Spinn- und Webmaschinen, also der industriellen Revolution des 18. Jahrhunderts. Sie befähigte einen in der Weberei ganz unerfahrenen Jungen, durch bloßes Ab- und Zustoßen einer Treibstange den ganzen Stuhl mit allen seinen Schützen in Bewegung zu setzen, und lieferte, in ihrer verbesserten Form, 40–50 Stück auf einmal.

The main text gives other examples, besides the ribbon loom:

About 1630, a wind-sawmill, erected near London by a Dutchman, succumbed to the excesses of the populace. Even as late as the beginning of the 18th century, sawmills driven by water overcame the opposition of the people, supported as it was by Parliament, only with great difficulty. No sooner had Everet in 1758 erected the first wool-shearing machine that was driven by water-power, than it was set on fire by 100,000 people who had been thrown out of work. Fifty thousand workpeople, who had previously lived by carding wool, petitioned Parliament against Arkwright's scribbling mills and carding engines. The enormous destruction of machinery that occurred in the English manufacturing districts during the first 15 years of this century, chiefly caused by the employment of the power-loom, and known as the Luddite movement, gave the anti-Jacobin governments of a Sidmouth, a Castlereagh, and the like, a pretext for the most reactionary and forcible measures.

Ende des ersten Dritteiles des 17. Jahrhunderts erlag eine Windsägemühle, von einem Holländer in der Nähe Londons angelegt, vor Pöbelexzessen. Noch Anfang des 18. Jahrhunderts überwandene durch Wasser getriebene Sägemaschinen in England nur mühsam den parlamentarisch unterstützten Volkswiderstand. Als Everet 1758 die erste vom Wasser getriebene Maschine zum Wollscheren erbaut hatte, wurde sie von 100 000 außer Arbeit gesetzten Menschen in Brand gesteckt. Gegen die scribbling mills und Kardiermaschinen Arkwrights petitionierten 50 000 Arbeiter, die bisher vom Wollkratzen gelebt, beim Parlament. Die massenhafte Zerstörung von Maschinen in den englischen Manufakturdistrikten während der ersten 15 Jahre des 19. Jahrhunderts, namentlich infolge der Ausbeutung des Dampfwebstuhls, bot, unter dem Namen der Ludditenbewegung, der Antijakobiner-Regierung eines Sidmouth, Castlereagh usw. den Vorwand zu reaktionärsten Gewaltschritten.

↓ The last sentence in the paragraph gives an interpretation: it takes time until the workers learn to distinguish between machinery and its employment by capital.

It took both time and experience before the workpeople learnt to distinguish between machinery and its employment by capital, and to direct their attacks, not against the material instruments of production, but against the mode in which they are used.¹⁹⁵

Es bedarf Zeit und Erfahrung, bevor der Arbeiter die Maschinerie von ihrer kapitalistischen Anwendung unterscheiden und daher seine Angriffe vom materiellen Produktionsmittel selbst auf dessen gesellschaftliche Exploitationsform übertragen lernt.¹⁹⁵

Footnote 195 shows that occasionally, the workers' upset against the means of production continue till the time *Capital* was written:

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¹⁹⁵ In old-fashioned manufactures the revolts of the workpeople against machinery, even to this day, occasionally assume a savage character, as in the case of the Sheffield file cutters in 1865.

Next Marx contrasts the workers' fight against the machine with the class struggles during the manufacturing period. During this earlier time, workers did not fight against the manufacturing system itself but accepted the system and fought for higher wages (see footnote 193). If there was a fight against the system, it was done by the remnants of the medieval system.

432:1/o The contests about wages in the Manufactories, pre-suppose the manufactories, and are in no sense directed against their existence. The opposition against the establishment of new manufactories proceeds from the guilds and privileged towns, not from the workpeople.

⇓ The theoreticians / ideologists spoke of virtual replacement of workers rather than their actual displacement:

Hence the writers of the period of manufactories treat the division of labor chiefly as a means of virtually supplying a deficiency of laborers, and not as a means of actually displacing those in work.

Now Marx explains this difference, and note that he does not use examples from the manufactories but from machinery:

This distinction is self-evident. If it be said that 100 millions of people would be required in England to spin with the old spinning-wheel the cotton that is now spun with mules by 500,000 people, this does not mean that the mules took the place of those millions who never existed. It means only this, that many millions of workpeople would be required to replace the spinning machinery. If, on the other hand, we say, that in England the power-loom threw 800,000 weavers on the streets, we do not refer to existing machinery, that would have to be replaced by a definite number of workpeople, but to a number of weavers in existence who were actually replaced or displaced by the looms.

¹⁹⁵ In altmodischen Manufakturen wiederholt sich noch heute zuweilen die rohe Form der Arbeiterempörungen gegen die Maschinerie. So z.B. im Feilenschleifen zu Sheffield 1865.

452:1/oo Die Kämpfe um den Arbeitslohn innerhalb der Manufaktur setzen die Manufaktur voraus und sind keineswegs gegen ihre Existenz gerichtet. Soweit die Bildung der Manufakturen bekämpft wird, geschieht es von den Zunftmeistern und privilegierten Städten, nicht von den Lohnarbeitern.

Bei Schriftstellern der Manufakturperiode wird die Teilung der Arbeit daher vorherrschend als Mittel aufgefaßt, virtuell Arbeiter zu ersetzen aber nicht, wirklich Arbeiter zu verdrängen.

Dieser Unterschied ist selbstverständlich. Sagt man z.B., es würden 100 Millionen Menschen in England erheischt sein, um mit dem alten Spinnrad die Baumwolle zu verspinnen, die jetzt von 500 000 mit der Maschine versponnen wird, so heißt das natürlich nicht, daß die Maschine den Platz dieser Millionen, die nie existiert haben, einnahm. Es heißt nur, daß viele Millionen Arbeiter erheischt wären, um die Spinnmaschinerie zu ersetzen. Sagt man dagegen, daß der Dampfwebstuhl in England 80 000 Weber auf das Pflaster warf, so spricht man nicht von existierender Maschinerie, die durch eine bestimmte Arbeiterzahl ersetzt werden müßte, sondern von einer existierenden Arbeiterzahl, die faktisch durch Maschinerie ersetzt oder verdrängt worden ist.

Question 1019 *What is the difference between virtual replacement and actual displacement of workers?*

Why had the workers not fought against the introduction of manufactories? Because in

manufacturing, the one side of increased productivity is dominant, the increase in products, (manufactures arose from the pull of colonial markets), while the introduction of machinery had the replacement of workers (the push from more profits, cost-cutting) as purpose.

During the period of the manufactories, handicraft labor, altered though it was by division of labor, was yet the basis. The demands of the new colonial markets could not be satisfied owing to the relatively small number of town operatives handed down from the middle ages, and the manufactories proper opened out new fields of production to the rural population, driven from the land by the dissolution of the feudal system. At that time, therefore, division of labor and co-operation in the workshops, were viewed more from the positive aspect, that they made the workpeople more productive.¹⁹⁶ Long before the period of Modern Industry, co-operation and the concentration of the instruments of labor in the hands of a few, gave rise, in numerous countries where these methods were applied in agriculture, to great, sudden and forcible revolutions in the modes of production, and consequentially, in the conditions of existence, and the means of employment of the rural populations. But this contest at first takes place more between the large and the small landed proprietors, than between capital and wage-labor; on the other hand, when the laborers are displaced by the instruments of labor, by sheep, horses, etc., in this case force is directly resorted to in the first instance as the prelude to the industrial revolution. The laborers are first driven from the land, and then come the sheep. Land grabbing on a great scale, such as was perpetrated in England, is the first step in creating a field for the establishment of agriculture on a great scale.^{196a} Hence this subversion of agriculture puts on, at first, more the appearance of a political revolution.

¹⁹⁶ Sir James Steuart also understands machinery quite in this sense. "Je considère donc les machines comme des moyens d'augmenter (virtuellement) le nombre des gens industriels qu'on n'est pas obligé de nourrir... En quoi l'effet d'une machine diffère-t-il de celui de nou-

Während der Manufakturperiode blieb der handwerksmäßige Betrieb, wenn auch zerlegt, die Grundlage. Die neuen Kolonialmärkte konnten durch die relativ schwache Anzahl der vom Mittelalter überlieferten städtischen Arbeiter nicht befriedigt werden, und die eigentlichen Manufakturen öffneten zugleich dem mit Auflösung der Feudalität von Grund und Boden verjagten Landvolke neue Produktionsgebiete. Damals trat also an der Teilung der Arbeit und der Kooperation in den Werkstätten mehr die positive Seite hervor, daß sie beschäftigte Arbeiter produktiver machen.¹⁹⁶ Kooperation und Kombination der Arbeitsmittel in den Händen weniger rufen, auf die Agrikultur angewandt, zwar große, plötzliche und gewaltsame Revolutionen der Produktionsweise und daher der Lebensbedingungen und Beschäftigungsmittel der Landbevölkerung hervor, in vielen Ländern lang vor der Periode der großen Industrie. Aber dieser Kampf spielt ursprünglich mehr zwischen großen und kleinen Landeigentümern als zwischen Kapital und Lohnarbeit: andererseits, soweit Arbeiter durch Arbeitsmittel, Schafe, Pferde usw. verdrängt werden, bilden unmittelbare Gewaltakte hier in erster Instanz die Voraussetzung der industriellen Revolution. Erst werden die Arbeiter vom Grund und Boden verjagt, und dann kommen die Schafe. Der Landdiebstahl auf großer Stufenleiter, wie in England, schafft der großen Agrikultur erst ihr Anwendungsfeld.^{196a} In ihren Anfängen hat diese Umwälzung der Agrikultur daher mehr den Schein einer politischen Revolution.

¹⁹⁶ Sir James Steuart faßt auch die Wirkung der Maschinerie noch ganz in diesem Sinn. „Ich sehe also die Maschinen als Mittel an, um (ihrer Wirkungsfähigkeit nach) die Zahl der tätigen Menschen zu erhöhen, ohne daß man deren mehr zu ernähren braucht ... Wodurch unterscheidet

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veaux habitants?" (French trans. t. I., l. I., ch. XIX.)

This is really another way of saying that the purpose of machinery is relative surplus-value. Marx must have agreed, because he calls the next quote more naïve:

More naïve is Petty, who says, it replaces "Polygamy." The above point of view is, at the most, appropriate only for some parts of the United States.

sich die Wirkung einer Maschine von derjenigen neuer Einwohner? (Fzs. Übers., t. I, l. I., ch. XIX.)

Viel naiver Petty, der sagt, daß sie die „Polygamie“ ersetze. Dieser Gesichtspunkt paßt höchstens für einige Teile der Ver. Staaten.

Why this reference to the United States? Perhaps: In Europe, polygamy is not necessary because capital creates the relative surplus population. But in the United States, the frontier drains off the relative surplus population? The next quote takes a position "against" the above because it says towards the end that machinery is not used for a lack of workers:

On the other hand, "machinery can seldom be used with success to abridge the labor of an individual; more time would be lost in its construction than could be saved by its application. It is only really useful when it acts on great masses, when a single machine can assist the work of thousands. It is accordingly in the most populous countries, where there are most idle men, that it is most abundant ... It is not called into use by a scarcity of men, but by the facility with which they can be brought to work in masses." (Piercy Ravenstone: "Thoughts on the Funding System and its Effects." London, 1824, p. 45.)

Dagegen: „Maschinerie kann selten mit Erfolg dazu gebracht werden, die Arbeit eines einzelnen zu vermindern: bei ihrer Konstruktion würde man mehr Zeit verlieren, als durch ihre Anwendung ersparen. Sie ist nur wirklich nützlich, wenn sie auf große Massen wirkt, wenn eine einzige Maschine die Arbeit von Tausenden unterstützen kann. Maschinerie wird daher stets am meisten in den dichtest bevölkerten Ländern angewandt, wo es die meisten Arbeitslosen gibt ... Sie wird in Gebrauch genommen nicht wegen Mangel an Arbeitern, sondern der Leichtigkeit wegen, mit der diese zur Arbeit in Massen gebracht werden können.“ (Peircy Ravenstone, „Thoughts on the Funding System and its Effects“, Lond. 1824, p. 45.)

^{196a} {Note in the 4th German edition.—This applies to Germany too. Where in our country agriculture on a large scale exists, hence particularly in the East, it has become possible only in consequence of the clearing of the estates ("Bauernlegen"), a practice which became widespread in the 16th century and was particularly so since 1648.—F. E.}

^{196a} {Zur 4. Aufl.—Dies gilt auch für Deutschland. Wo bei uns große Agrikultur besteht, also namentlich im Osten, ist sie erst möglich geworden durch das, seit dem 16. Jahrhundert, namentlich aber seit 1648, eingerissene „Bauernlegen“.—F.E.}

There is a natural competition between machines and workers because machines are introduced to replace workers. The next paragraph is very interesting:

433:1–435:2 The instrument of labor, when it takes the form of a machine, immediately becomes a competitor of the workman himself.¹⁹⁷ The self-expansion of capital by means of machinery is thenceforward directly proportional to the number of the workpeople, whose means of livelihood have been destroyed by that machinery.

454:1–455:2 Als Maschine wird das Arbeitsmittel sofort zum Konkurrenten des Arbeiters selbst.¹⁹⁷ Die Selbstverwertung des Kapitals durch die Maschine steht im direkten Verhältnis zur Arbeiterzahl, deren Existenzbedingungen sie vernichtet.

¹⁹⁷ "Machinery and labor are in constant competition." Ricardo, l.c., p. 479.

¹⁹⁷ „Maschinerie und Arbeit sind in ständiger Konkurrenz.“ (Ricardo, l.c. p. 479.)

This must be a reference to extra surplus-value.

In order to describe this in more detail, Marx harks back to his thought in and develops it

further: Labor-power not only loses its use-value but also its exchange-value, because it has become simplified so much that it can be replaced by machines.

The whole system of capitalist production is based on the fact that the workman sells his labor-power as a commodity. Division of labor specializes this labor-power, by reducing it to skill in handling a particular tool. So soon as the handling of this tool becomes the work of a machine, then, with the use-value, the exchange-value too, of the workman's labor-power vanishes; the workman becomes unsaleable, like paper money thrown out of currency by legal enactment.

Das ganze System der kapitalistische Produktion beruht darauf, daß der Arbeiter seine Arbeitskraft als Ware verkauft. Die Teilung der Arbeit vereinseitigt diese Arbeitskraft zum ganz partikularisierten Geschick, ein Teilwerkzeug zu führen. Sobald die Führung des Werkzeugs der Maschine anheimfällt, erlischt mit dem Gebrauchswert der Tauschwert der Arbeiterkraft. Der Arbeiter wird unverkäuflich, wie außer Kurs gesetztes Papiergeld.

Marx uses the example of paper-money to explain this point: Manufacture dequalifies the labor, i.e., replaces labor with something "worthless" (no use-value), like gold with paper-money. With the introduction of big industry, the labor can be replaced by the operation of machinery, just as the paper-money can be devalued. Now what happens to the displaced worker?

That portion of the working-class, thus by machinery rendered superfluous, i.e., no longer immediately necessary for the self-expansion of capital, either goes to the wall in the unequal contest of the old handicrafts and manufactures with machinery, or else floods all the more easily accessible branches of industry, swamps the labor-market, and sinks the price of labor-power below its value.

Der Teil der Arbeiterklasse, den die Maschinerie so in überflüssige, d.h. nicht länger zur Selbstverwertung des Kapitals unmittelbar notwendige Bevölkerung verwandelt, geht einerseits unter in dem ungleichen Kampf des alten handwerksmäßigen und manufakturmäßigen Betriebs wider den maschinenmäßigen, überflutet andererseits alle leichter zugänglichen Industriezweige, überfüllt den Arbeitsmarkt und senkt daher den Preis der Arbeitskraft unter ihren Wert.

Now two kinds of "consolation" of the workers for their fate, and Marx's critique of this consolation:

It is impressed upon the workpeople, as a great consolation, first, that their sufferings are only temporary ("a temporary inconvenience"), secondly, that machinery acquires the mastery over the whole of a given field of production, only by degrees, so that the extent and intensity of its destructive effect is diminished. The first consolation neutralises the second. When machinery seizes on an industry by degrees, it produces chronic misery among the operatives who compete with it. Where the transition is rapid, the effect is acute and felt by great masses.

Ein großer Trost für die pauperisierten Arbeiter soll sein, daß ihre Leiden teils nur „zeitlich“ („a temporary inconvenience“), teils daß die Maschinerie sich nur allmählich eines ganzen Produktionsfelds bemächtigt, wodurch Umfang und Intensität ihrer vernichtenden Wirkung gebrochen werde. Der eine Trost schlägt den andren. Wo die Maschine allmählich ein Produktionsfeld ergreift, produziert sie chronisches Elend in der mit ihr konkurrierenden Arbeiterschichte. Wo der Übergang rasch, wirkt sie massenhaft und akut.

Then examples how deadly the competition of the machine can be for the worker:

History discloses no tragedy more horri-

Die Weltgeschichte bietet kein entsetzliche-

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ble than the gradual extinction of the English hand-loom weavers, an extinction that was spread over several decades, and finally sealed in 1838. Many of them died of starvation, many with families vegetated for a long time on 2 1/2 d. a day.¹⁹⁸ On the other hand, the English cotton machinery produced an acute effect in India. The Governor General reported 1834–35:

“The misery hardly finds a parallel in the history of commerce. The bones of the cotton-weavers are bleaching the plains of India.”

¹⁹⁸ The competition between hand-weaving and power-weaving in England, before the passing of the Poor Law of 1833, was prolonged by supplementing the wages, which had fallen considerably below the minimum, with parish relief. “The Rev. Mr. Turner was, in 1827, rector of Wilmslow in Cheshire, a manufacturing district. The questions of the Committee of Emigration, and Mr. Turner’s answers, show how the competition of human labor is maintained against machinery. ‘Question: Has not the use of the power-loom superseded the use of the hand-loom? Answer: Undoubtedly; it would have superseded them much more than it has done, if the hand-loom weavers were not enabled to submit to a reduction of wages.’ ‘Question: But in submitting he has accepted wages which are insufficient to support him, and looks to parochial contribution as the remainder of his support? Answer: Yes, and in fact the competition between the hand-loom and the power-loom is maintained out of the poor-rates.’ Thus degrading pauperism or expatriation, is the benefit which the industrious receive from the introduction of machinery, to be reduced from the respectable and in some degree independent mechanic, to the cringing wretch who lives on the debasing bread of charity. This they call a temporary inconvenience.” (“A Prize Essay on the Comparative Merits of Competition and Co-operation.” Lond., 1834, p. 29.)

No doubt, in turning them out of this “temporal” world, the machinery caused them

res Schauspiel als den allmählichen, über Dezennien verschleppten, endlich 1838 besiegelten Untergang der englischen Handbaumwollweber. Viele von ihnen starben am Hungertod, viele vegetierten lange mit ihren Familien auf 2 1/2 d. täglich.¹⁹⁸ Akut dagegen wirkte die englische Baumwollmaschinerie auf Ostindien, dessen Generalgouverneur 1834/35 konstatierte:

„Das Elend findet kaum seine Parallele in der Geschichte des Handels. Die Knochen der Baumwollweber bleichen die Ebenen von Indien.“

¹⁹⁸ Die Konkurrenz zwischen Handgeweb und Maschinengeweb wurde in England vor der Einführung des Armengesetzes von 1834 dadurch verlängert, daß man die tief unter das Minimum gefallen Löhne durch Pfarreiunterstützung ergänzte. „Reverend Mr. Turner war 1827 Pfarrer in Wilmslow in Cheshire, einem industriellen Distrikt. Die Fragen des Komitees für Auswanderung und Mr. Turners Antworten zeigen, wie der Wettbewerb der Handarbeit mit der Maschinerie aufrechterhalten wird. Frage: „Hat nicht die Anwendung des Kraftwebstuhls die des Handwebstuhls verdrängt?“ Antwort: „Zweifelloso; sie würde ihn noch mehr, als bereits geschehn, verdrängt haben, wären die Handwerker nicht in den Stand gesetzt worden, sich einer Lohnherabsetzung zu unterwerfen.“ Frage: „Aber der Handwerker hat doch durch diese Unterwerfung sich mit einem Lohn zufriedengegeben, der für seine Lebensunterhalt unzureichend ist, und verlangt nach Pfarreizuschuß für den Rest seines Lebensunterhalts?“ Antwort: „Ja, und in der Tat wird der Wettbewerb zwischen dem Handwebstuhl und dem Kraftwebstuhl durch die Armenunterstützung aufrechterhalten.“ So ist also erniedrigender Pauperismus oder Auswanderung der Vorteil, den die Einführung der Maschinerie den Werkträgern gebracht hat, sie sind aus geachteten und in gewissem Grade unabhängigen Handwerkern zu kriecherischen Elenden herabgedrückt worden, die das entwürdigende Brot der Mildtätigkeit essen. Das nennt man einen zeitlichen Mißstand.“ („A Prize Essay on the comparative merits of Competition and Co-operation“, Lond. 1834, p. 29.)

Allerdings, sofern diese Weber das Zeitliche segneten, bereitete ihnen die Maschi-

no more than “a temporary inconvenience.” For the rest, since machinery is continually seizing upon new fields of production, its temporary effect is really permanent. Hence, the character of independence and estrangement which the capitalist mode of production as a whole gives to the instruments of labor and to the product, as against the workman, is developed by means of machinery into a thorough antagonism.¹⁹⁹ Therefore, it is with the advent of machinery, that the workman for the first time brutally revolts against the instruments of labor.

↑ This is the only place in the machinery chapter where Marx talks about estrangement or alienation. Machinery is beyond alienated from the worker, it is the mortal enemy of the worker. This is the reason for brutal revolts of the workers against the machines.

¹⁹⁹ “The same cause which may increase the revenue of the country” (i.e., as Ricardo explains in the same passage, the revenues of landlords and capitalists, whose wealth, from the economic point of view, forms the Wealth of the Nation), “may at the same time render the population redundant and deteriorate the condition of the laborer.” (Ricardo, *I.c.*, p. 469.) “The constant aim and the tendency of every improvement in machinery is, in fact, to do away entirely with the labor of man, or to lessen its price by substituting the labor of women and children for that of grown-up men, or of unskilled for that of skilled workmen.” (Ure, *I.c.*, t. I., p. 35.)

Replacement of workers not only at the beginning of machinery, but always thereafter.

435:3 The instrument of labor strikes down the laborer. This direct antagonism between the two comes out most strongly, whenever newly introduced machinery competes with handicrafts or manufactories, handed down from former times. But even in Modern Industry the continual improvement of machinery, and the development of the automatic system, has an analogous effect.

“The object of improved machinery is to diminish manual labor, to provide for the performance of a process or the completion of a link in a manufacture by the aid of an iron instead of the human apparatus.”²⁰⁰

²⁰⁰ “Rep. Insp. Fact. for 31st October, 1858,” p. 43.

ne nur „zeitliche Mißstände“. Übrigens ist die „zeitliche“ Wirkung der Maschinerie permanent, indem sie beständig neue Produktionsgebiete ergreift. Die verselbständigte und entfremdete Gestalt, welche die kapitalistische Produktionsweise überhaupt den Arbeitsbedingungen und dem Arbeitsprodukt gegenüber dem Arbeiter gibt, entwickelt sich also mit der Maschinerie zum vollständigen Gegensatz.¹⁹⁹ Daher mit ihr zum erstenmal die brutale Revolte des Arbeiters gegen das Arbeitsmittel.

¹⁹⁹ „Die gleiche Ursache, die die Nettoeinnahme des Landes anwachsen läßt“ (d.h. , wie Ricardo an derselben Stelle erläutert, the revenues of landlords and capitalists, deren Wealth, ökonomisch betrachtet, überhaupt = Wealth of the Nation), „kann gleichzeitig einen Überfluß an Bevölkerung erzeugen und die Lage des Arbeiters verschlechtern.“ (Ricardo, *I.c.* p. 469.) „Der beständige Zweck und die Tendenz jeder Vervollkommenung des Mechanismus ist in der Tat, sich der Arbeit des Menschen ganz zu entschlagen oder ihren Preis zu vermindern durch Substitution von Weiber- und Kinderarbeit für die der erwachsenen männlichen Arbeiter oder roher Arbeiter für geschickte.“ (Ure, [*I.c.* p. 23].)

455:3 Das Arbeitsmittel erschlägt den Arbeiter. Dieser direkte Gegensatz erscheint allerdings am handgreiflichsten, sooft neu eingeführte Maschinerie konkurriert mit überlieferten Handwerks- oder Manufakturbetrieb. Aber innerhalb der großen Industrie selbst wirkt fortwährende Verbeßrung der Maschinerie und Entwicklung des automatischen Systems analog.

456:1 „Der beständige Zweck verbesserter Maschinerie ist, die Handarbeit zu vermindern oder einen Ring in der Produktionskette der Fabrik durch Substitution eiserner für menschliche Apparate zu vollenden.“²⁰⁰

²⁰⁰ „Reports of Insp. of Fact. 31st Oct. 1858“, p. 43.

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⇓ Reference to energy:

“The adaptation of power to machinery heretofore moved by hand, is almost of daily occurrence ... the minor improvements in machinery having for their object economy of power, the production of better work, the turning off more work in the same time, or in supplying the place of a child, a female, or a man, are constant, and although sometimes apparently of no great moment, have somewhat important results.”²⁰¹

²⁰¹ “Rep. Insp. Fact. for 31st October, 1856,” p. 15.

⇓ Operations needing skills replaced by machinery.

“Whenever a process requires peculiar dexterity and steadiness of hand, it is withdrawn, as soon as possible, from the cunning workman, who is prone to irregularities of many kinds, and it is placed in charge of a peculiar mechanism, so self-regulating that a child can superintend it.”²⁰² “On the automatic plan skilled labor gets progressively superseded.”²⁰³ “The effect of improvements in machinery, not merely in superseding the necessity for the employment of the same quantity of adult labor as before, in order to produce a given result, but in substituting one description of human labor for another, the less skilled for the more skilled, juvenile for adult, female for male, causes a fresh disturbance in the rate of wages.”²⁰⁴ “The effect of substituting the self-acting mule for the common mule, is to discharge the greater part of the men spinners, and to retain adolescents and children.”²⁰⁵

²⁰² Ure, l.c., p. 19. “The great advantage of the machinery employed in brick-making consists in this, that the employer is made entirely independent of skilled laborers.” (“Ch. Empl. Comm. V. Report,” Lond., 1866, p. 130, n. 46.)

Mr. A. Sturrock, superintendent of the machine department of the Great Northern Railway, says, with regard to the building of locomotives, etc.:

„Die Anwendung von Dampf- und Wasserkraft auf Maschinerie, die bisher mit der Hand bewegt wurde, ist das Ereignis jedes Tages ... Die kleineren Verbeßungen in der Maschinerie, welche Ökonomie der Bewegungskraft, Verbeßung des Machwerks, vermehrte Produktion in derselben Zeit oder Verdrängung eines Kindes, eines Frauenzimmers oder eines Mannes bezwecken, sind konstant, und obgleich scheinbar nicht von großem Gewicht, haben sie dennoch wichtige Resultate.“²⁰¹

²⁰¹ „Reports etc. 31st Oct. 1856“, p. 15.

„Überall, wo eine Operation viel Geschick und eine sichere Hand verlangt, entzieht man sie so schnell als möglich den Armen des zu geschickten und oft zu Unregelmäßigkeiten aller Art geneigten Arbeiters, um einen besondern Mechanismus damit zu betrauen, der so gut geregelt ist, daß ein Kind ihn überwachen kann.“²⁰² „Im automatischen System wird das Talent des Arbeiters progressiv verdrängt.“²⁰³ „Die Verbeßung der Maschinerie erfordert nicht nur Verminderung in der Anzahl der beschäftigten erwachsenen Arbeiter zur Erzielung eines bestimmten Resultats, sondern sie substituiert eine Klasse von Individuen einer andren Klasse, eine minder geschickte einer geschickteren, Kinder den Erwachsenen, Frauen den Männern. Alle diese Wechsel verursachen beständige Fluktuationen in der Rate des Arbeitslohns.“²⁰⁴ „Die Maschinerie wirft unaufhörlich Erwachsene aus der Fabrik heraus.“²⁰⁵

²⁰² „Ure, l.c. p. 19. „Der große Vorteil der im Ziegelbacken angewandten Maschinerie besteht darin, den Anwender ganz und gar von geschickten Arbeitern unabhängig zu machen.“ „Ch. Empl. Comm., V. Report“, Lond. 1866, p. 130, n. 46.)

Zusatz z. 2. A. Herr Sturrock, Superintendent des Maschinendepartements der Great Northern Railway, sagt aus mit Bezug auf Maschinenbau

“Expensive English workmen are being less used every day. The production of the workshops of England is being increased by the use of improved tools and these tools are again served by a low class of labor... Formerly their skilled labor necessarily produced all the parts of engines. Now the parts of engines are produced by labor with less skill, but with good tools. By tools, I mean engineer’s machinery, lathes, planing machines, drills, and so on.” (“Royal Comm. on Railways,” Lond., 1867, Minutes of Evidence, n. 17, 862 and 17, 863.)

²⁰³ Ure, l.c., p. 20.

²⁰⁴ Ure, l.c., p. 321.

²⁰⁵ Ure, l.c., p. 23.

(Lokomotiven usw.): „Kostspielige (expensive) englische Arbeiter werden jeden Tag weniger gebraucht. Die Produktion wird vermehrt durch die Anwendung verbesserter Instrumente, und diese Instrumente werden bedient von einer niedrigen Sorte Arbeit (a low class of labour) ... Früher produzierte geschickte Arbeit notwendigerweise alle Teils der Dampfmaschine. Dieselben Teile werden jetzt produziert durch Arbeit mit weniger Geschick, aber guten Instrumenten ... Unter Instrumenten verstehe ich die beim Maschinenbau angewandten Maschinen.“ „Royal Commission on Railways. Minutes of Evidence“, n. 17 862 und 17 863, London 1867.)

²⁰³ Ure, l.c. p. 20.

²⁰⁴ l.c. p. 321.

²⁰⁵ l.c. p. 23.

Rapid advances of machinery after shortening of the work day during Civil-War-induced cotton crisis:

The extraordinary power of expansion of the factory system owing to accumulated practical experience, to the mechanical means at hand, and to constant technical progress, was proved to us by the giant strides of that system under the pressure of a shortened working-day. But who, in 1860, the Zenith year of the English cotton industry, would have dreamt of the galloping improvements in machinery, and the corresponding displacement of working people, called into being during the following 3 years, under the stimulus of the American Civil War? A couple of examples from the Reports of the Inspectors of Factories will suffice on this point. A Manchester manufacturer states:

“We formerly had 75 carding engines, now we have 12, doing the same quantity of work ... We are doing with fewer hands by 14, at a saving in wages of £10 a-week. Our estimated saving in waste is about 10% in the quantity of cotton consumed.”

“In another fine-spinning mill in Manchester, I was informed that through increased speed and the adoption of some self-acting processes, a reduction had been made, in number, of a fourth in one department, and of above half in another, and that the introduc-

456:2–457:1 Die außerordentliche Elastizität des Maschinenwesens infolge gehäuf-ter praktischer Erfahrung, des schon vor-handnen Umfangs mechanischer Mittel und des beständigen Fortschritts der Technik zeigte uns sein Sturmmarsch unter dem Druck eines verkürzten Arbeitstags. Aber wer hätte 1860, im Zenitjahr der engli-schen Baumwollindustrie, die galoppieren-den Verbesserungen der Maschinerie und die entsprechende Deplacierung von Hand-arbeit geahnt, welche die drei folgenden Jahre unter dem Stachel des Amerikani-schen Bürgerkriegs hervorriefen? Von den offiziellen Anführungen der englischen Fa-brikinspektoren über diesen Punkt genügen hier ein paar Beispiele. Ein Manchester Fa-brikant erklärt:

„Statt 75 Kardiermaschinen brauchen wir jetzt nur 12, welche dieselbe Quantität von eben-so guter, wenn nicht beßrer Qualität liefern ... Die Ersparung an Arbeitslohn beträgt 10 Pfd. St. wöchentlich, die an Baumwollabfall 10%.“

457:2–3 In einer Manchester Feinspinne-rei wurde „vermittelt beschleunigter Bewe-gung und Einführung verschiedner self-acting Prozesse in einem Departement 1/4, in ei-nem über 1/2 des Arbeiterpersonals beseitigt, während die Kämmaschine an der Stelle der

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tion of the combing machine in place of the second carding, had considerably reduced, the number of hands formerly employed in the carding-room.”

Another spinning-mill is estimated to effect a saving of labor of 10%. The Messrs. Gilmour, spinners at Manchester, state:

“In our blowing-room department we consider our expense with new machinery is fully one-third less in wages and hands ... in the jack-frame and drawing-frame room, about one-third less in expense, and likewise one-third less in hands; in the spinningroom about one-third less in expenses. But this is not all; when our yarn goes to the manufacturers, it is so much better by the application of our new machinery, that they will produce a greater quantity of cloth, and cheaper than from the yarn produced by old machinery.”²⁰⁶

²⁰⁶ “Rep. Insp. Fact., 31st Oct., 1863,” pp. 108,109.

437:0b–437:1 Mr. Redgrave further remarks in the same Report:

“The reduction of hands against increased production is, in fact, constantly taking place, in woollen mills the reduction commenced some time since, and is continuing; a few days since, the master of a school in the neighbourhood of Rochdale said to me, that the great falling off in the girls’ school is not only caused by the distress, but by the changes of machinery in the woollen mills, in consequence of which a reduction of 70 short-timers had taken place.”²⁰⁷

²⁰⁷ I.c., p. 109. The rapid improvement of machinery, during the crisis, allowed the English manufacturers, immediately after the termination of the American Civil War, and almost in no time, to glut the markets of the world again. Cloth, during the last six months of 1866, was almost unsaleable. Thereupon began the consignment of goods to India and China, thus naturally making the glut more intense. At the beginning of 1867 the manufacturers resorted to their usual way out of the difficulty, viz., reducing wages 5 per cent. The workpeople resisted, and said that the only remedy was to work short time, 4 days a-week; and their theory was the correct one. After holding out for some time, the self-elected captains

zweiten Kardiermaschine die Zahl der früher im Kardierraum beschäftigten Hände sehr vermindert hat“.

457:4–5 Eine andre Spinnfabrik schätzt ihre allgemeine Ersparung von „Händen“ auf 10%. Die Herren Golmore, Spinner zu Manchester, erklären:

„In unsrem blowing departement schätzten wir die infolge neuer Maschinerie gemachte Ersparung an Händen und Arbeitslohn auf ein volles Drittel ... in dem jack frame und drawing frame room ungefähr 1/3 weniger in Auslage und Händen; im Spinnraum ungefähr 1/3 weniger in Auslage. Aber das ist nicht alles; wenn unser Garn jetzt zum Weber geht, ist es so sehr verbessert durch die Anwendung der neuen Maschinerie, daß sie mehr und besseres Gewebe als mit dem alten Maschinen-garn produzieren.“²⁰⁶

²⁰⁶ „Reports of Insp. of Fact., 31st Oct. 1863“, p. 108 sqq.

457:6–7 Fabrikinspektor A. Redgrave bemerkt hierzu:

„Die Verminderung der Arbeiter bei gesteigerter Produktion schreitet rasch vorwärts; in den Wollfabriken begann kürzlich eine neue Reduktion der Hände, und sie dauert fort; vor wenigen Tagen sagte mir ein Schulmeister, der bei Rochdale wohnt, die große Abnahme in den Mädchenschulen sei nicht nur dem Druck der Krise geschuldet, sondern auch den Änderungen in der Maschinerie der Wollfabrik, infolge deren eine Durchschnittsreduktion von 70 Halbzeitlern stattgefunden.“²⁰⁷

²⁰⁷ I.c. p. 109. Die rasche Verbesserung der Maschinerie während der Baumwollkrise erlaubte den englischen Fabrikanten gleich nach Beendigung des Amerikanischen Bürgerkriegs, im Umsehen den Weltmarkt wieder zu überfüllen. Die Gewebe wurden schon während der letzten 6 Monate von 1866 fast unverkäuflich. Damit fing die Konsignation der Waren nach China und Indien an, was den „glut“ natürlich noch intensiver machte. Anfang 1867 nahmen die Fabrikanten zu ihrem gewöhnlichen Ausfluchtsmittel Zuflucht, Herabsetzung des Arbeitslohns um 5%. Die Arbeiter widersetzten sich und erklärten, theoretisch ganz richtig, das einzige Heilmittel sei, kurze Zeit, 4 Tage per Woche, zu arbeiten. Nach

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of industry had to make up their minds to short time, with reduced wages in some places, and in others without.

437:2–438:2 The following table shows the total result of the mechanical improvements in the English cotton industry due to the American Civil War. NUMBER OF FACTORIES

	1857	1861	1868
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England and Wales	2,046	2,715	2,405
Scotland	152	163	131
Ireland	12	9	13

United Kingdom	2,210	2,887	2,549
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	1857	1861	1868
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England and Wales	275,590	368,125	344,719
Scotland	21,624	30,110	31,864
Ireland	1,633	1,757	2,746

United Kingdom	298,847	399,992	379,329
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	1857	1861	1868
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England and Wales	25,818,576	28,352,125	30,478,228
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längerem Sträuben mußten die selbst ernannten Industriekapitäne sich hierzu entschließen, an einigen Stellen mit, an andren ohne Lohnherabsetzung um 5%.

458:1–2 Das Gesamtergebnis der dem Amerikanischen Bürgerkrieg geschuldeten mechanischen Verbesserungen in der englischen Baumwollindustrie zeigt folgende Tabelle:

	1856	1861	1868
	Zahl der Fabriken		
England und Wales	2046	2715	2405
Schottland	152	163	131
Irland	12	9	13
Vereinigtes Königreich	2210	2887	2549
	Anzahl der Dampfwebstühle		
England und Wales	275 590	367 125	344 719
Schottland	21 624	30 110	31 864
Irland	1622	1757	2746
Vereinigtes Königreich	298 847	399 992	379 329
	Anzahl der Spindeln		
England und Wales	25 818 576	28 352 125	30 478 228
Schottland	2 041 129	1 915 398	1 397 546
Irland	150 512	119 944	124 240
Vereinigtes Königreich	28 010 217	30 387 467	32 000 014
	Anzahl der beshäftigten Personen		
England und Wales	341 170	407 598	357 052
Schottland	34 698	41 237	39 809
Irland	3345	2734	4203
Vereinigtes Königreich	379 213	451 569	401 064

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Scotland	2,041,129	1,915,398	1,397,546
Ireland	150,512	119,944	124,240

– United Kingdom 28,010,217 30,387,467
32,000,014 NUMBER OF PERSONS EMPLOYED

1857 1861 1868

Eng-
land and Wales 341,170 407,598 357,052
Scotland 34,698 41,237 39,809 Ireland
3,345 2,734 4,203

United Kingdom
379,213 451,569 401,064

438:3 Hence, between 1861 and 1868, 338 cotton factories disappeared, in other words more productive machinery on a larger scale was concentrated in the hands of a smaller number of capitalists. The number of power-loom decreased by 20,663; but since their product increased in the same period, an improved loom must have yielded more than an old one. Lastly the number of spindles increased by 1,612,541, while the number of operatives decreased by 50,505. The “temporary” misery inflicted on the workpeople by the cotton-crisis, was heightened, and from being temporary made permanent, by the rapid and persistent progress of machinery.

⇓ Machinery expressly introduced to break the resistance of workers, or to deliver the capitalists from the burden of their contract with the workers. Note that labor-cost are not really costs; and this is no longer cost-cutting but increasing the capitalists’ share at the expense of the workman’s share. Contradictions of machinery blurted out naively by Ure. (This is a new paragraph in French, and also in German—where the many quotes made many paragraphs anyway—, but not in English)

438:4/o But machinery not only acts as a competitor who gets the better of the workman, and is constantly on the point of making him superfluous. It is also a power inimical to him, and as such capital proclaims it from the roof tops and as such makes use of it. It is the most powerful weapon for repressing strikes, those periodical revolts of the working-class against the autocracy of capital.²⁰⁸ According to Gaskell, the steam-engine was from the very first an antago-

458:3/o Von 1861 bis 1868 verschwanden also 338 Baumwollfabriken; d.h., produktivere und großartigere Maschinerie konzentrierte sich in den Händen einer geringeren Zahl von Kapitalisten. Die Zahl der Dampfwebstühle nahm ab um 20 663; aber ihr Produkt hatte sich gleichzeitig vermehrt, so daß ein verbesserter Webstuhl jetzt mehr leistete als ein alter. Endlich die Spindelzahl wuchs um 1 612 541, während die Zahl der beschäftigten Arbeiter um 50 505 abnahm. Das „zeitweilige“ Elend, womit die Baumwollkrise die Arbeiter erdrückte, wurde also gesteigert und befestigt durch raschen und anhaltenden Fortschritt der Maschinerie.

459:1 Die Maschinerie wirkt jedoch nicht nur als übermächtiger Konkurrent, stets auf dem Sprung, den Lohnarbeiter „überflüssig“ zu machen. Als ihm feindliche Potenz wird sie laut und tendenziell vom Kapital proklamiert und gehandhabt. Sie wird das machtvollste Kriegsmittel zur Niederschlagung der periodischen Arbeiteraufstände, strikes usw. wider die Autokratie des Kapitals.²⁰⁸ Nach Gaskell war gleich die Dampfmaschine ein Antagonist der „Menschenkraft“, der

nist of human power, an antagonist that enabled the capitalist to tread under foot the growing claims of the workmen, who threatened the newly born factory system with a crisis.²⁰⁹ It would be possible to write quite a history of the inventions, made since 1830, for the sole purpose of supplying capital with weapons against the revolts of the working-class. At the head of these in importance, stands the self-acting mule, because it opened up a new epoch in the automatic system.²¹⁰

²⁰⁸ "The relation of master and man in the blown-flint bottle trades amounts to a chronic strike." Hence the impetus given to the manufacture of pressed glass, in which the chief operations are done by machinery. One firm in Newcastle, who formerly produced 350,000 lbs. of blown-flint glass, now produces in its place 3,000,500 lbs. of pressed glass. ("Ch. Empl. Comm., Fourth Rep.," 1865, pp. 262–263.)

²⁰⁹ Gaskell. "The Manufacturing Population of England," London, 1833, pp. 3, 4.

²¹⁰ W. Fairbairn discovered several very important applications of machinery to the construction of machines, in consequence of strikes in his own workshops.

439:1–2 Nasmyth, the inventor of the steam-hammer, gives the following evidence before the Trades' Union Commission, with regard to the improvements made by him in machinery and introduced in consequence of the wide-spread and long strikes of the engineers in 1851.

"The characteristic feature of our modern mechanical improvements, is the introduction of self-acting tool machinery. What every mechanical workman has now to do, and what every boy can do, is not to work himself but to superintend the beautiful labor of the machine. The whole class of workmen that depend exclusively on their skill, is now done away with. Formerly, I employed four boys to every mechanic. Thanks to these new mechanical combinations, I have reduced the number of grown-up men from 1,500 to 750. The result was a considerable increase in my profits."

den Kapitalisten befähigte, die steigenden Ansprüche der Arbeiter niederzuschmettern, die das beginnende Fabrikssystem zur Krise zu treiben drohten.²⁰⁹ Man könnte eine ganze Geschichte der Erfindungen seit 1830 schreiben, die bloß als Kriegsmittel des Kapitals wider Arbeiteremeuten ins Leben traten. Wir erinnern vor allem an die selfacting mule, weil sie eine neue Epoche des automatischen Systems eröffnet.²¹⁰

²⁰⁸ „Das Verhältnis zwischen Meistern und Händen in den Flint- und Flaschenglas-Bläsereien ist ein chronischer strike.“ Daher der Aufschwung der Manufaktur des gepreßten Glases, wo die Hauptoperationen durch Maschinerie ausgeführt werden. Eine Firma bei Newcastle, die früher jährlich 350 000 Pfund geblasenes Flintglas produzierte, produziert jetzt statt dessen 3 000 500 Pfund gepreßtes Glas. („Ch. Empl. Comm. IV. Rep.“, 1865, p. 272, 263.)

²⁰⁹ Gaskell, „The Manufacturing Population of England“, Lond. 1833, p. 11, 12.

²¹⁰ Einige sehr bedeutende Anwendungen von Maschinen zum Maschinenbau erfand Herr Fairbairn infolge von strikes in seiner eignen Maschinenfabrik.

459:2–3 In seiner Aussage vor der Trades Unions Commission berichtet Nasmyth, der Erfinder des Dampfhammers, wie folgt über die Verbeßrungen der Maschinerie, die er einführte infolge des großen und langen strikes der Maschinenarbeiter 1851:

„Der bezeichnende Zug unsrer modernen mechanischen Verbeßrungen ist die Einführung selbsttätiger Werkzeugmaschinen. Was jetzt ein mechanischer Arbeiter zu tun hat, und was jeder Junge tun kann, ist nicht, selbst zu arbeiten, sondern die schöne Arbeit der Maschine zu überwachen. Die ganze von ihrer Geschicklichkeit ausschließlich abhängende Klasse von Arbeitern ist jetzt beseitigt. Früher beschäftigte ich vier Jungen auf einen Mechaniker. Dank diesen neuen mechanischen Kombinationen habe ich die Zahl der erwachsenen Männer von 1500 auf 750 reduziert. Die Folge war eine bedeutende Vermehrung meines

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439:3–8 Ure says of a machine used in calico printing:

“At length capitalists sought deliverance from this intolerable bondage” [namely the, in their eyes, burdensome terms of their contracts with the workmen] “in the resources of science, and were speedily re-instated in their legitimate rule, that of the head over the inferior members.”

Speaking of an invention for dressing warps, whose immediate impetus was a strike:

“Then the combined malcontents, who fancied themselves impregnably entrenched behind the old lines of division of labor, found their flanks turned and their defences rendered useless by the new mechanical tactics, and were obliged to surrender at discretion.”

With regard to the invention of the self-acting mule, he says:

“A creation destined to restore order among the industrious classes ... This invention confirms the great doctrine already propounded, that when capital enlists science into her service, the refractory hand of labor will always be taught docility.”²¹¹

²¹¹ Ure, *l.c.*, pp. 368–370

Profits.”

460:1–6 Ure sagt von einer Maschine zum Farbendruck in den Kattundruckereien:

„Endlich suchten sich die Kapitalisten von dieser unerträglichen Sklaverei“ (nämlich den ihnen lästigen Kontraktsbedingungen der Arbeiter) „zu befreien, indem sie die Hilfsquellen der Wissenschaft anriefen, und bald waren sie reintegriert in ihre legitimen Rechte, die des Kopfes über die andern Körperteile.“

Er sagt von einer Erfindung zum Kettenschlichten, deren unmittelbarer Anlaß ein strike:

„Die Horde der Unzufriedenen, die sich hinter den alten Linien der Teilung der Arbeit unsiegbar verschanzt wähnte, sah sich so in die Flanke genommen und ihre Verteidigungsmittel vernichtet durch die moderne mechanische Taktik. Sie mußten sich auf Gnade und Ungnade ergeben.“

Er sagt von der Erfindung der selfacting mule:

„Sie war berufen, die Ordnung unter den industriellen Klassen wiederherzustellen ... Diese Erfindung bestätigt die von uns bereits entwickelte Doktrin, daß das Kapital, indem es die Wissenschaft in seinen Dienst preßt, stets die rebellische Hand der Arbeit zur Gelehrigkeit zwingt.“²¹¹

²¹¹ Ure, *l.c.* p. 367–370.

Question 1020 How was machinery in turn used to break the resistance of the workers?

At the end of the section Marx exposes the cynicism of the apologists of capital and the logical contradictions they commit:

Although Ure’s work appeared 30 years ago, at a time when the factory system was comparatively but little developed, it still perfectly expresses the spirit of the factory, not only by its undisguised cynicism, but also by the *naïveté* with which it blurts out the stupid contradictions of the capitalist brain. For instance, after propounding the “doctrine” stated above, that capital, with the aid of science taken into its pay,

“always reduces the refractory hand of labor to docility,” he grows indignant because

460:7–8 Obgleich Ures Schrift 1835 erschien, also zur Zeit eines relativ noch schwach entwickelten Fabriksystems, bleibt sie der klassische Ausdruck des Fabrikgeists, nicht nur wegen ihres offenerhitzigen Zynismus, sondern auch wegen der *Naïvetät*, womit er die gedankenlosen Widersprüche des Kapitalhirns ausplaudert. Nachdem er z.B. die „Doktrin“ entwickelt, daß das Kapital mit Hilfe der von ihm in Sold genommenen Wissenschaft

„stets die rebellische Hand der Arbeit zur Gelehrigkeit zwingt“, entrüstet er sich darüber,

15.5. Strife between Worker and Machine

“it (physico-mechanical science) has been accused of lending itself to the rich capitalist as an instrument for harassing the poor.”

After preaching a long sermon to show how advantageous the rapid development of machinery is to the working-classes, he warns them, that by their obstinacy and their strikes they hasten that development.

“Violent revulsions of this nature,” he says, “display short-sighted man in the contemptible character of a self-tormentor.”

A few pages before he states the contrary.

“Had it not been for the violent collisions and interruptions resulting from erroneous views among the factory operatives, the factory system would have been developed still more rapidly and beneficially for all concerned.”

Then he exclaims again:

“Fortunately for the state of society in the cotton districts of Great Britain, the improvements in machinery are gradual.” “It” (improvement in machinery) “is said to lower the rate of earnings of adults by displacing a portion of them, and thus rendering their number superabundant as compared with the demand for their labor. It certainly augments the demand for the labor of children and increases the rate of *their* wages.”

On the other hand, this same dispenser of consolation defends the lowness of the children’s wages on the ground that it prevents parents from sending their children at too early an age into the factory. The whole of his book is a vindication of a working-day of unrestricted length; that Parliament should forbid children of 13 years to be exhausted by working 12 hours a day, reminds his liberal soul of the darkest days of the middle ages. This does not prevent him from calling upon the factory operatives to thank Providence, who by means of machinery has given them the leisure to think of their “immortal interests.”²¹²

²¹² Ure, l.c., pp. 368, 7, 370, 280, 281, 321,

„daß man von gewisser Seite die mechanisch-physische Wissenschaft anklagt, sich dem Despotismus reicher Kapitalisten zu leihen und zum Unterdrückungsmittel der armen Klassen herzugeben“.

460:9–461:2 Nachdem er weit und breit gepredigt, wie vorteilhaft rasche Entwicklung der Maschinerie den Arbeitern, warnt er sie, daß sie durch ihre Widersetzlichkeit, strikes usw., die Entwicklung der Maschinerie beschleunigen.

„Derartige gewaltsame Revolten“, sagt er, „zeigen die menschliche Kurzsichtigkeit in ihrem verächtlichsten Charakter, dem Charakter eines Menschen, der sich zu seinem eignen Henker macht.“

Wenige Seiten vorher heißt es umgekehrt:

„Ohne die heftigen Kollisionen und Unterbrechungen, verursacht durch die irrigen Ansichten der Arbeiter, hätte sich das Fabrikssystem noch viel rascher entwickelt und viel nützlicher für alle interessierten Parteien.“

Dann ruft er wieder aus:

„Zum Glück für die Bevölkerung der Fabrikbezirke Großbritanniens finden die Verbesserungen in der Mechanik nur allmählich statt.“ „Mit Unrecht“, sagt er, „klagt man die Maschinen an, daß sie den Arbeitslohn der Erwachsenen vermindern, indem sie einen Teil derselben verdrängen, wodurch ihre Anzahl das Bedürfnis nach Arbeit übersteigt. Aber sie vermehren die Nachfrage nach Kinderarbeit und erhöhen damit *deren* Lohnrate.“

461:3 Derselbe Trostspender verteidigt andererseits die Niedrigkeit der Kinderlöhne damit, daß „sie die Eltern abhalten, ihre Kinder zu früh in die Fabriken zu schicken“. Sein ganzes Buch ist eine Apologie des unbeschränkten Arbeitstags, und es erinnert seine liberale Seele an die dunkelsten Zeiten des Mittelalters, wenn die Gesetzgebung verbietet, Kinder von 13 Jahren mehr als 12 Stunden per Tag abzurackern. Dies hält ihn nicht ab, die Fabrikarbeiter zu einem Dankgebet an die Vorsehung aufzufordern, die ihnen durch die Maschinerie „die Muße verschafft habe, über ihre unsterblichen Interessen nachzudenken“.²¹²

²¹² Ure, l.c. p. 368, 7, 370, 280, 321, 281, 475.

Term Paper Topic 1021 *Term Paper about chapter Fifteen, section 5: How did the character of the class struggle (both on the part of the capitalists and the workers) change with the introduction of machinery?*

15.6. The Theory of Compensation as Regards the Workpeople Displaced by Machinery

Questions about Section 6:

Question 1022 *Does the introduction of machinery automatically set free the capital to reemploy the workers displaced by this machinery (theory of compensation)?*

Question 1023 *How can machinery set the stage for the creation of new jobs (in a way which has nothing to do with the theory of compensation)?*

15.6.a. [Direct Compensation Impossible]

Only the first half of this section (until 445:1) discusses the theory of compensation. Whether the theory of compensation is correct or not depends on how it is defined. Marx insists on a narrow definition under which the theory of compensation is wrong.

- the first half of this section shows that *direct* compensation is impossible.
- In the second half, Marx discusses conditions under which compensation due to rebound is possible. This second part asks the general question where the workers displaced by machinery can be employed.

The first paragraph formulates the theory:

440:7/o James Mill, MacCulloch, Torrens, Senior, John Stuart Mill, and many other bourgeois political economists, insist that all machinery that displaces workmen, simultaneously and necessarily sets free an amount of capital adequate to employ the same identical workmen.²¹³

²¹³ Originally, Ricardo shared this opinion, but afterwards he expressly disclaimed it with the scientific impartiality and love of truth characteristic of him. See l.c., ch. xxxi. "On Machinery."

461:4 Eine ganze Reihe bürgerlicher Ökonomen, wie James Mill, MacCulloch, Torrens, Senior, J. St. Mill usw. behauptet, daß alle Maschinerie, die Arbeiter verdrängt, stets gleichzeitig und notwendig ein adäquates Kapital zur Beschäftigung derselben identischen Arbeiter freisetzt.²¹³

²¹³ Ricardo teilte ursprünglich diese Ansicht, widerrief sie aber später ausdrücklich mit seiner charakteristischen wissenschaftlichen Unbefangenheit und Wahrheitsliebe. Sieh l.c., ch. XX-XI „On Machinery“.

To check this theory, Marx goes through a series of examples of introduction of machines. He begins with a very simple static example, in which there is clearly no displacement of workers. Then he relaxes the assumptions, in order to see if these relaxations lead to the displacement of workers.

441:1 Suppose a capitalist to employ 100 workmen, at £30 a year each, in a wallpaper factory. The variable capital annually laid

461:5/o Man unterstelle, ein Kapitalist wende 100 Arbeiter an, z.B. in einer Tapetenmanufaktur, den Mann zu 30 Pfd.St.

out amounts, therefore, to £3,000. Suppose, also, that he discharges 50 of his workmen, and employs the remaining 50 with machinery that costs him £1,500. To simplify matters, we take no account of buildings, coal, etc. Further suppose that the raw material annually consumed costs £3,000, both before and after the change.²¹⁴

²¹⁴ *Nota bene.* My illustration is entirely on the lines of those given by the above named economists.

↑ Marx begins with a simple case, which is also the worst case in which the introduction of machinery is possible: instead of machinery producing more products more cheaply, this example machinery produces as much as the workers and costs as much as the workers. I.e., instead of £1,500 in labor costs the capitalists now has £1,500 in costs for machines. Apparently, according to the footnote, similar examples were discussed by the economists whom Marx is trying to refute.

Note that Marx does mention coal as an important ingredient.

↓ Now Marx's conclusions from this example:

Is any capital set free by this metamorphosis? Before the change, the total sum of £6,000 consisted half of constant, and half of variable capital. After the change it consists of £4,500 constant (£3,000 raw material and £1,500 machinery), and £1,500 variable capital. The variable capital, instead of being one half, is only one quarter, of the total capital. Instead of being set free, a part of the capital is here locked up in such a way as to cease to be exchanged against labor-power: variable has been changed into constant capital. Other things remaining unchanged, the capital of £6,000, can, in future, employ no more than 50 men.

jährlich. Das von ihm jährlich ausgelegte variable Kapital beträgt also 3000 Pfd. St. Er entlasse 50 Arbeiter und beschäftige die übrigbleibenden 50 mit einer Maschinerie, die ihm 1500 Pfd.St. kostet. Der Vereinfachung halber wird von Baulichkeiten, Kohlen usw. abgesehn. Man nimmt ferner an, das jährlich verzehrte Rohmaterial koste nach wie vor 3000 Pfd.St.²¹⁴

²¹⁴ NB, ich gebe die Illustration ganz in der Weise der obengenannten Ökonomen.

Ist durch diese Metamorphose irgendein Kapital „freigesetzt“? In der alten Betriebsweise bestand die ausgelegte Gesamtsumme von 6000 Pfd.St. halb aus konstantem und halb aus variablem Kapital. Sie besteht jetzt aus 4500 Pfd.St. (3000 Pfd.St. für Rohmaterial und 1500 Pfd.St. für Maschinerie) konstantem und 1500 Pfd.St. variablem Kapital. Statt der Hälfte bildet der variable oder in lebendige Arbeitskraft umgesetzte Kapitalteil nur noch 1/4 des Gesamtkapitals. Statt der Freisetzung findet hier Bindung von Kapital in einer Form statt, worin es aufhört, sich gegen Arbeitskraft auszutauschen, d.h. Verwandlung von variablem in konstantes Kapital. Das Kapital von 6000 Pfd.St. kann, unter sonst gleichbleibenden Umständen, jetzt niemals mehr als 50 Arbeiter beschäftigen.

This is the clearest example where capital is not set free in order to employ more workers, but the same amount of capital is advanced by the capitalist introducing the machinery as before, and this capital is advanced in such a way that fewer laborers are employed than before. Marx uses the phrase that instead of being set free to employ more workers, this capital is “bound” in a form in which it cannot employ more workers.

In order to get the result that there is no difference for the capitalist introducing the machine, the assumption must be here also that the machines last exactly one year, and Marx disregards the difference in turnover time for now, i.e., he assumes that the laborers were

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paid in advance for the year, like machines.

↓ This brief sentence generalizes this example.

With each improvement in the machinery, it will employ fewer.

Mit jeder Verbeßerung der Maschinerie beschäftigt es weniger.

↑ The problem here is that Marx looks at the issue statically instead of dynamically. He does not have room in his model for a shift to a higher growth rate.

↓ If we have similar simplifying assumptions but assume conditions more favorable for the introduction of machinery, then some capital is set free, and this capital may employ some workers, but far fewer than those made redundant.

If the newly introduced machinery had cost less than did the labor-power and implements displaced by it, if, for instance, instead of costing £1,500, it had cost only £1,000, a variable capital of £1,000 would have been converted into constant capital, and locked up; and a capital of £500 would have been set free. The latter sum, supposing wages unchanged, would form a fund sufficient to employ about 16 out of the 50 men discharged; nay, less than 16, for, in order to be employed as capital, a part of this £500 must now become constant capital, thus leaving only the remainder to be laid out in labor-power.

Kostete die neu eingeführte Maschinerie weniger als die Summe der von ihr verdrängten Arbeitskraft und Arbeitswerkzeuge, also z.B. statt 1500 nur 1000 Pfd.St., so würde ein variables Kapital von 1000 Pfd.St. in konstantes verwandelt oder gebunden, während ein Kapital von 500 Pfd.St. freigesetzt würde. Letzteres, denselben Jahreslohn unterstellt, bildet einen Beschäftigungsfonds für ungefähr 16 Arbeiter, während 50 entlassen sind, ja für viel weniger als 16 Arbeiter, da die 500 Pfd.St. zu ihrer Verwandlung in Kapital wieder zum Teil in konstantes Kapital verwandelt werden müssen, also auch nur zum Teil in Arbeitskraft umgesetzt werden können.

↑ The above is a limited field of vision. Marx has only shown that the capital set free by the same capitalist who replaces workers with machines, if any, is not enough to reemploy these workers. ↓ Now he is looking at a broader subset of the economy. Marx is about to show that also the number of jobs created in the production of that machinery must be lower than the number of jobs replaced by the machinery.

441:2/o But, suppose, besides, that the making of the new machinery affords employment to a greater number of mechanics, can that be called compensation to the carpet-makers, thrown on the streets? At the best, its construction employs fewer men than its employment displaces. The sum of £1,500 that formerly represented the wages of the discharged carpet-makers, now represents in the shape of machinery: (1) the value of the means of production used in the construction of that machinery, (2) the wages of the mechanics employed in its construction, and (3) the surplus-value failing to the share of their “master.”

462:1 Indes, gesetzt auch, die Anfertigung der neuen Maschinerie beschäftige eine größere Anzahl Mechaniker; soll das eine Kompensation sein für die aufs Pflaster geworfnen Tapetenmacher? Im besten Fall beschäftigt ihre Anfertigung weniger Arbeiter, als ihre Anwendung verdrängt. Die Summe von 1500 Pfd.St., die nur den Arbeitslohn der entlassenen Tapetenmacher darstellte, stellt jetzt, in der Gestalt von Maschinerie, dar: 1. den Wert der zu ihrer Herstellung erforderlichen Produktionsmittel, 2. den Arbeitslohn der sie anfertigenden Mechaniker, 3. den ihrem „Meister“ zufallenden Mehrwert.

↑ Here the fact enters that the value of the machinery contains surplus-value and is therefore not simply reducible to wages (the constant capital entering the machines is in turn

reducible to surplus-value and wages, a fact which Marx does not mention here). If there were no surplus-value, a much smoother migration of the workers from the production of the product to the production of the machinery might seem possible. But then there would not be accumulation!

↓ Then Marx brings another argument: the machinery does not need to be replaced until its death.

Further, the machinery need not be renewed till it is worn out. Hence, in order to keep the increased number of mechanics in constant employment, one carpet manufacturer after another must displace workmen by machines.

Ferner: einmal fertig, braucht die Maschine nicht erneuert zu werden bis nach ihrem Tod. Um also die zusätzliche Anzahl Mechaniker dauernd zu beschäftigen, muß ein Tapetenfabrikant nach dem andern Arbeiter durch Maschinen verdrängen.

↑ To me, this does not seem to be an additional factor: the life length of the machinery is already taken into consideration when the decision is made to replace workers by machines because this lowers costs. What really should be on this place is that machinery increases the capital outlays, which is an additional obstacle to introducing machinery, even if the cost per piece of output is the same or lower! Or: the introduction of machinery may at first employ all workers set free; only later, when all those machines have been produced, will the unemployment become visible in the machine-building industries! But this is the general theme of the second half of this section. As a whole it seems that this section would deserve some better thinking-through. What if the lower prices elicit more demand?

Marx implies that this is all that *has to* happen. Of course there are *possibilities* that machinery lowers the price, increases production, and therefore more workers are needed to produce raw materials etc.—but this does not *have to* happen. Actually, this will be discussed at length in the second half of the section, Marx says that it “has nothing in common with the so-called theory of compensation”

But if you look at where these £1500 are spent after the capitalist spends them, you get to an enlightening insight what these words “setting free” really mean: the workers can no longer buy the means of subsistence, therefore the capital producing these means of subsistence is set free.

442:1 As a matter of fact the apologists do not mean this sort of setting free. They have in their minds the means of subsistence of the liberated work-people. It cannot be denied, in the above instance, that the machinery not only liberates 50 men, thus placing them at others’ disposal, but, at the same time, it withdraws from their consumption, and sets free, means of subsistence to the value of £1,500. The simple fact, by no means a new one, that machinery cuts off the workmen from their means of subsistence is, therefore, in economic parlance tantamount to this, that machinery liberates means of subsistence for the workman, or converts those means into capital for his employment. The mode of expression, you see, is everything. Nominibus mollire

462:2/o In der Tat meinen jene Apologeten auch nicht diese Art Freisetzung von Kapital. Sie meinen die Lebensmittel der freigesetzten Arbeiter. Es kann nicht geleugnet werden, daß im obigen Fall z.B. die Maschinerie nicht nur 50 Arbeiter freisetzt und dadurch „disponibel“ macht, sondern zugleich ihren Zusammenhang mit Lebensmitteln zum Wert von 1500 Pfd.St. aufhebt und so diese Lebensmittel „freisetzt“. Die einfache und keineswegs neue Tatsache, daß die Maschinerie den Arbeiter von Lebensmitteln freisetzt, lautet also ökonomisch, daß die Maschinerie Lebensmittel für den Arbeiter freisetzt oder in Kapital zu seiner Anwendung verwandelt. Man sieht, es kommt alles auf die Ausdrucksweise an. Nominibus mollire licet mala.

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licet mala.

↑ This seems to be an important argument but I don't get it.

↓ Marx is taking a general equilibrium approach but not a dynamic approach.

442:2 This theory implies that the £1,500 worth of means of subsistence was capital that was being expanded by the labor of the 50 men discharged. That, consequently, this capital falls out of employment so soon as they commence their forced holidays, and never rests till it has found a fresh investment, where it can again be productively consumed by these same 50 men. That sooner or later, therefore, the capital and the workmen must come together again, and that, then, the compensation is complete. That the sufferings of the workmen displaced by machinery are therefore as transient as are the riches of this world.

↑ This is a daring re-formulation of the hypothesis, ↓ followed by an equally daring refutation:

442:3/o In relation to the discharged workmen, the £1,500 worth of means of subsistence never was capital. What really confronted them as capital, was the sum of £1,500 afterwards laid out in machinery. On looking closer it will be seen that this sum represented part of the carpets produced in a year by the 50 discharged men, which part they received as wages from their employer in money instead of in kind. With the carpets in the form of money, they bought means of subsistence to the value of £1,500. These means, therefore, were to them, not capital, but commodities, and they, as regards these commodities, were not wage-laborers, but buyers. The circumstance that they were "freed" by the machinery, from the means of purchase, changed them from buyers into non-buyers. Hence a lessened demand for those commodities—that is all.

↓ Now an important place about price adjustment in the short run and quantity adjustment in the long run. Is this relevant for the theory of competition?

If this diminution be not compensated by an increase from some other quarter, the market price of the commodities falls. If this state of things lasts for some time, and ex-

463:1 Nach dieser Theorie waren die Lebensmittel zum Wert von 1500 Pfd.St. ein durch die Arbeit der fünfzig entlassenen Arbeiter verwertetes Kapital. Dies Kapital verliert folglich seine Beschäftigung, sobald die fünfzig Feiertag bekommen, und hat nicht Ruh noch Rast, bis es eine neue „Anlage“ gefunden, worin besagte fünfzig es wieder produktiv konsumieren können. Früher oder später müssen also Kapital und Arbeiter sich wieder zusammenfinden, und dann ist die Kompensation da. Die Leiden der durch die Maschinerie verdrängten Arbeiter sind also ebenso vergänglich wie die Reichtümer dieser Welt.

463:2/o Die Lebensmittel zum Betrag von 1500 Pfd.St. standen den entlassenen Arbeitern niemals als Kapital gegenüber. Was ihnen als Kapital gegenüberstand, waren die jetzt in Maschinerie verwandelten 1500 Pfd.St. Näher betrachtet, repräsentierten diese 1500 Pfd.St. nur einen Teil der vermittelst der entlassenen 50 Arbeiter jährlich produzierten Tapeten, die sie in Geldform statt in natura von ihrem Anwender zum Lohn erhielten. Mit den in 1500 Pfd.St. verwandelten Tapeten kauften sie Lebensmittel zu demselben Betrag. Diese existierten für sie daher nicht als Kapital, sondern als Waren, und sie selbst existierten für diese Waren nicht als Lohnarbeiter, sondern als Käufer. Der Umstand, daß die Maschinerie sie von Kaufmitteln „freigesetzt“ hat, verwandelt sie aus Käufern in Nicht-Käufer. Daher verminderte Nachfrage für jene Waren. Voilà tout.

Wird diese verminderte Nachfrage nicht durch vermehrte Nachfrage von anderer Seite kompensiert, so sinkt der Marktpreis der Waren. Dauert dies länger und in größerem

tends, there follows a discharge of workmen employed in the production of these commodities. Some of the capital that was previously devoted to production of necessary means of subsistence, has to become reproduced in another form. While prices fall, and capital is being displaced, the laborers employed in the production of necessary means of subsistence are in their turn “freed” from a part of their wages.

⇓ Does Marx get his next result because he assumes profit but not growth?

Instead, therefore, of proving that, when machinery frees the workman from his means of subsistence, it simultaneously converts those means into capital for his further employment, our apologists, with their cut-and-dried law of supply and demand, prove, on the contrary, that machinery throws workmen on the streets, not only in that branch of production in which it is introduced, but also in those branches in which it is not introduced.

The next paragraph is not the start of something new, as the beginning sentence may suggest, but only the continuation of the discussion: In the preceding paragraph, it was discussed what happened to the means of subsistence, and now it is discussed what happens to the laborers. With the result that they do not have to find each other again. Is this argument similar to his refutation of Say’s law?

443:1/o The real facts, which are travestied by economic optimism, are as follows: The laborers, when driven out of the workshop by the machinery, are thrown upon the labor-market, and there add to the number of workmen at the disposal of the capitalists.

Economic optimism is the (unfounded) assumption that in a general equilibrium things will be righted. Accumulation chapter will tell what really happens to these workers:

In Part VII. of this book it will be seen that this effect of machinery, which, as we have seen, is represented to be a compensation to the working-class, is on the contrary a most frightful scourge. For the present I will only say this: The laborers that are thrown out of work in any branch of industry, can no doubt seek for employment in some other branch. If they find it, and thus renew the bond between them and the means of subsistence,

Umfange, so erfolgt ein Displacement der in der Produktion jener Waren beschäftigten Arbeiter. Ein Teil des Kapitals, das früher notwendige Lebensmittel produzierte, wird in anderer Form reproduziert. Während des Falls der Marktpreise und des Displacements von Kapital werden auch die in der Produktion der notwendigen Lebensmittel beschäftigten Arbeiter von einem Teil ihres Lohns „freigesetzt“.

Statt also zu beweisen, daß die Maschinerie durch die Freisetzung der Arbeiter von Lebensmitteln letztere gleichzeitig in Kapital zur Anwendung der ersten verwandelt, beweist der Herr Apologet mit dem probaten Gesetz von Nachfrage und Zufuhr umgekehrt, daß die Maschinerie nicht nur in dem Produktionszweig, worin sie eingeführt, sondern auch in den Produktionszweigen, worin sie nicht eingeführt wird, Arbeiter aufs Pflaster wirft.

464:1 Die wirklichen, vom ökonomischen Optimismus travestierten Tatsachen sind diese: Die von der Maschinerie verdrängten Arbeiter werden aus der Werkstatt hinaus auf den Arbeitsmarkt geworfen und vermehren dort die Zahl der schon für kapitalistische Ausbeutung disponiblen Arbeitskräfte.

Im siebenten Abschnitt wird sich zeigen, daß diese Wirkung der Maschinerie, die uns hier als eine Kompensation für die Arbeiterklasse dargestellt wird, den Arbeiter im Gegenteil als furchtbarste Geißel trifft. Hier nur dies: Die aus einem Industriezweig hinausgeworfenen Arbeiter können allerdings in irgendeinem andern Beschäftigung suchen. Finden sie solche, und knüpft sich damit das Band zwischen ihnen und den

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this takes place only by the intermediary of a new and additional capital that is seeking investment; not at all by the intermediary of the capital that formerly employed them and was afterwards converted into machinery.

Now a dynamic point of view would be that the additional machinery produces ... Rpf can say something here.

And even should they find employment, what a poor look-out is theirs! Crippled as they are by division of labor, these poor devils are worth so little outside their old trade, that they cannot find admission into any industries, except a few of inferior kind, that are over-supplied with underpaid workmen.²¹⁵

²¹⁵ A disciple of Ricardo, in answer to the insipidities of J. B. Say, remarks on this point: "Where division of labor is well developed, the skill of the laborer is available only in that particular branch in which it has been acquired; he himself is a sort of machine. It does not therefore help matters one jot, to repeat in parrot fashion, that things have a tendency to find their level. On looking around us we cannot but see, that they are unable to find their level for a long time; and that when they do find it, the level is always lower than at the commencement of the process." ("An Inquiry into those Principles Respecting the Nature of Demand," etc., Lond. 1821, p. 72.)

↓ Now Marx talks explicitly about growth.

Further, every branch of industry attracts each year a new stream of men, who furnish a contingent from which to fill up vacancies, and to draw a supply for expansion. So soon as machinery sets free a part of the workmen employed in a given branch of industry, the reserve men are also diverted into new channels of employment, and become absorbed in other branches; meanwhile the original victims, during the period of transition, for the most part starve and perish.

Is this dual to the short term price long term quantity movement Marx mentioned in ...?

(FIXME: is this the right place for this comment?) ↑ In the preceding subdivision it was shown that the "apologists" obtain their result by making a correct observation: that laborers are set free of the means of subsistence. Then the "apologists" turn it around to say that the means of subsistence will re-establish the connection. ↓ As a conclusion, another more fundamental instance of such turning around is discussed: The apologists see correctly that

mit ihnen freigesetzten Lebensmitteln wieder, so geschieht dies vermittelt eines neuen, zuschüssigen Kapitals, das nach Anlage drängt, keineswegs aber vermittelt des schon früher funktionierenden und jetzt in Maschinerie verwandelten Kapitals.

Und selbst dann, wie geringe Aussicht haben sie! Verkrüppelt durch die Teilung der Arbeit, sind diese armen Teufel außerhalb ihres alten Arbeitskreises so wenig wert, daß sie nur in wenigen niedrigen und daher beständig überfüllten und unterbezahlten Arbeitszweigen Zugang finden.²¹⁵

²¹⁵ Ein Ricardianer bemerkt hierüber gegen die Fadaisen J. B. Says: „Bei entwickelter Teilung der Arbeit ist das Geschick der Arbeiter nur in dem besondern Zweig anwendbar, worin sie angelernt wurden; sie selbst sind eine Art von Maschinen. Es hilft daher absolut nichts, papageimäßig zu plappern, daß die Dinge eine Tendenz haben, ihr Niveau zu finden. Wir müssen um uns schauen und sehn, daß sie für lange Zeit ihr Niveau nicht finden können; daß, wenn sie es finden, das Niveau niedriger steht als beim Anfang des Prozesses.“ („An Inquiry into those Principles respecting the Nature of Demand etc.“, Lond. 1821, p. 72.)

Ferner attrahiert jeder Industriezweig jährlich einen neuen Menschenstrom, der ihm sein Kontingent zum regelmäßigen Ersatz und Wachstum liefert. Sobald die Maschinerie einen Teil der bisher in einem bestimmten Industriezweig beschäftigten Arbeiter freisetzt, wird auch die Ersatzmannschaft neu verteilt und in andern Arbeitszweigen absorbiert, während die ursprünglichen Opfer in der Übergangszeit größtenteils verkommen und verkümmern.

machinery in itself (“an sich” translated with “as such”) is not responsible for “setting free” the workman—but its capitalistic application is. Obviously again the in itself consideration of machinery leads us to see how machinery can be applied if we take away capitalism!

444:1/o It is an undoubted fact that machinery, as such, is not responsible for “setting free” the workman from the means of subsistence. It cheapens and increases production in that branch which it seizes on, and at first makes no change in the mass of the means of subsistence produced in other branches. Hence, after its introduction, the society possesses as much, if not more, of the necessities of life than before, for the laborers thrown out of work; and that quite apart from the enormous share of the annual produce wasted by the non-workers.

↓ Now a very general conclusion. I think *Pointe* is not point relied on, but this is their trick how they get the results they like:

And this is the point relied on by our apologetists! They pretend the contradictions and antagonisms inseparable from the capitalist employment of machinery do not exist, because they do not arise out of machinery, as such, but out of its capitalist employment!

↓ Very good essay how the capitalist application of machinery turns everything around what machines are in themselves:

Since therefore machinery, considered alone, shortens the hours of labor, but, when in the service of capital, lengthens them; since in itself it lightens labor, but when employed by capital, heightens the intensity of labor; since in itself it is a victory of man over the forces of Nature, but in the hands of capital, makes man the slave of those forces; since in itself it increases the wealth of the producers, but in the hands of capital, makes them paupers—for all these reasons and others besides, says the bourgeois economist without more ado, it is clear as noon-day that all these contradictions are a mere semblance of the reality, and that, as a matter of fact, they have neither an actual nor a theoretical existence.

↑ This is reminiscent of Kant’s Critique of Pure reason!

↓ Now Marx’s critique of parsimonious or succinct explanations (Occam’s razor): The most wuccinct explanation cannot do because we are dealing with *two* things, machinery

464:2/o Es ist eine unzweifelhafte Tatsache, daß die Maschinerie an sich nicht verantwortlich ist für die „Freisetzung“ der Arbeiter von Lebensmitteln. Sie verwohlfeilert und vermehrt das Produkt in dem Zweig, den sie ergreift, und läßt die in andren Industriezweigen produzierte Lebensmittelmasse zunächst unverändert. Nach wie vor ihrer Einführung besitzt die Gesellschaft also gleich viel oder mehr Lebensmittel für die deplacierten Arbeiter, ganz abgesehen von dem enormen Teil des jährlichen Produkts, der von Nichtarbeitern vergeudet wird.

Und dies ist die *Pointe* der ökonomischen Apologetik! Die von der kapitalistischen Anwendung der Maschinerie untrennbaren Widersprüche und Antagonismen existieren nicht, weil sie nicht aus der Maschinerie selbst erwachsen, sondern aus ihrer kapitalistischen Anwendung!

Da also die Maschinerie an sich betrachtet die Arbeitszeit verkürzt, während sie kapitalistisch angewandt den Arbeitstag verlängert, an sich die Arbeit erleichtert, kapitalistisch angewandt ihre Intensität steigert, an sich ein Sieg des Menschen über die Naturkraft ist, kapitalistisch angewandt den Menschen durch die Naturkraft unterjocht, an sich den Reichtum des Produzenten vermehrt, kapitalistisch angewandt ihn verpaupert usw., erklärt der bürliche Ökonom einfach, das Ansichbetrachten der Maschinerie beweise haarscharf, daß alle jene handgreiflichen Widersprüche bloßer Schein der gemeinen Wirklichkeit, aber an sich, also auch in der Theorie gar nicht vorhanden sind.

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and capitalism.

Thus he saves himself from all further puzzling of the brain, and what is more, implicitly declares his opponent to be stupid enough to contend against, not the capitalistic employment of machinery, but machinery itself.

↓ They admit disadvantages of machinery. This does not make them critical because everything good also has its bad aspects. They do not connect the downsides of the capitalist application of machinery with capitalism.

445:1 No doubt he is far from denying that temporary inconvenience may result from the capitalist use of machinery. But where is the medal without its reverse! Any employment of machinery, except by capital, is to him an impossibility. Exploitation of the workman by the machine is therefore, with him, identical with exploitation of the machine by the workman. Whoever, therefore, exposes the real state of things in the capitalistic employment of machinery, is against its employment in any way, and is an enemy of social progress!²¹⁶

²¹⁶ MacCulloch, amongst others, is a past master in this pretentious cretinism. "If," he says, with the affected naïveté of a child of 8 years, "if it be advantageous, to develop the skill of the workman more and more, so that he is capable of producing, with the same or with a less quantity of labour, a constantly increasing quantity of commodities, it must also be advantageous, that he should avail himself of the help of such machinery as will assist him most effectively in the attainment of this result." (MacCulloch: "Princ. of Pol. Econ.," Lond. 1830, p. 166.)

↑ 8-year-old children may be naive, but Marx would probably not call the naïveté of an 8-year-old child "affected." But when MacCulloch mimics the naïveté of an 8-year-old, Marx calls this unauthentic naïveté "affected." It is not due to a lack of experience (as in an 8-year-old), but it betrays MacCulloch's decision not to learn from his knowledge and experience. This is one of many places where Marx is critical of denial without calling it such.

Exactly the reasoning of the celebrated Bill Sykes.

"Gentlemen of the jury, no doubt the throat of this commercial traveller has been cut. But that is not my fault, it is the fault of the knife. Must we, for such a temporary inconvenience,

Er spart sich so alles weitre Kopfzerbrechen undbürdet seinem Gegner obendrein die Dummheit auf, nicht die kapitalistische Anwendung der Maschinerie zu bekämpfen, sondern die Maschinerie selbst.

465:1–466:0 Keineswegs leugnet der bürgerliche Ökonom, daß dabei auch zeitweilige Unannehmlichkeiten herauskommen; aber wo gäbe es eine Medaille ohne Kehrseite! Eine andre als die kapitalistische Ausnutzung der Maschinerie ist für ihn unmöglich. Ausbeutung des Arbeiters durch die Maschine ist ihm also identisch mit Ausbeutung der Maschine durch den Arbeiter. Wer also enthüllt, wie es um die kapitalistische Anwendung der Maschinerie in Wirklichkeit bestellt ist, der will ihre Anwendung überhaupt nicht, der ist ein Gegner des sozialen Fortschritts!²¹⁶

²¹⁶ Ein Virtuose in diesem anmaßlichen Kretinismus ist u.a. MacCulloch. „Wenn es vorteilhaft ist“, sagt er z.B. mit der affektierten Naivität eines Kindes von 8 Jahren, „das Geschick des Arbeiters mehr und mehr zu entwickeln, so daß er fähig wird, ein stets wachsendes Warenquantum mit demselben oder geringerem Arbeitsquantum zu produzieren, so muß es auch vorteilhaft sein, daß er sich solcher Maschinerie zu seinem Beistande bediene, wie sie ihn am wirksamsten in der Erreichung dieses Resultats unterstützt.“ (MacCulloch, „Princ. of Pol. Econ.“, Lond. 1830, p. 182.)

Ganz das Raisonement des berühmten Gurgelschneiders Bill Sykes:

„Meine Herren Geschwornen, diesen Handlungsreisenden ist allerdings die Gurgel abgeschnitten worden. Diese Tatsache aber ist nicht meine Schuld, sie ist die Schuld des

abolish the use of the knife? Only consider! where would agriculture and trade be without the knife? Is it not as salutary in surgery, as it is knowing in anatomy? And in addition a willing help at the festive board? If you abolish the knife—you hurl us back into the depths of barbarism.”^{216a}

^{216a} “The inventor of the spinning machine has ruined India, a fact, however, that touches us but little.” A. Thiers: *De la propriété*.—M. Thiers here confounds the spinning machine with the power-loom, “a fact, however, that touches us but little.”

Messers. Sollen wir wegen solcher zeitweiligen Unannehmlichkeiten den Gebrauch des Messers abschaffen? Bedenken Sie ja! Wo wäre Ackerbau und Handwerk ohne Messer? Ist es nicht ebenso heilbringend in der Chirurgie wie gelehrt in der Anatomie? Dazu williger Gehilfe bei fröhlichem Mahl? Schaffen Sie das Messer ab—Sie schleudern uns zurück in die tiefste Barbarei.“^{216a}

^{216a} „Der Erfinder der Spinnmaschine hat Indien ruiniert, was uns indes wenig rührt.“ (A. Thiers, „*De la Propriété*“, [p. 275].) Herr Thiers verwechselt hier die Spinnmaschine mit dem mechanischen Webstuhl, „was uns indes wenig rührt“.

15.6.b. [Compensation through Growth is Possible]

The second half of the section goes over from static equilibrium theory to growth theory. Marx is arguing the following:

(1) If there is no technical progress, then growth is possible without producing things that cannot be sold as long as it is growth everywhere. This is Marx’s intuition of the von Neumann growth model, which indeed says the only kind of growth which is compatible with market clearing is exponential growth in all industries with the same growth rate. This is not developed here but in Marx’s famous musings about crises where he says that disproportionality in every industry is not disproportionality. Although this is not developed here, the reader should be aware of this in order to understand the things which are developed here.

(2) The next step is, and this is indeed developed here: even if there is technical progress, growth is possible. Now everything is produced with less labor, therefore labor is set free, but technical progress leads to new use-values and new spheres of production which can absorb this labor. Marx stresses that this is a different process than the compensation theory, i.e., this process is not proof that the compensation theory is correct.

(3) What about the raw materials? True to his belief that capitalism creates all the conditions for its functioning, Marx believes that capitalism can also create enough raw materials. For instance, the cotton needed for the textile-industry driven phase of the industrial revolution comes from slave labor in the US, and capitalism is responsible for the very fast growth of the number of slaves. The international trade relations created by capitalism also bring more raw materials to the UK.

Here is where Marx trips up. Production cannot create energy out of nothing, and it cannot create copper or iron etc out of nothing. There are many physical constraints which are possible barriers of growth, and Wrigley says that lack of energy has been an actual barrier to growth in the past. The industrial revolution was not choked off by a lack of energy only because of fossil fuels, and the cheap fossil energy also allowed the importation of raw materials from all over the world without this becoming too costly and therefore unprofitable. Marx comes tantalizingly close to discovering and discussing this crucial role of fossil fuels, but in the end he overlooks it.

Now let’s look at this argument paragraph by paragraph.

445:2/o Although machinery necessar- | 466:1 Obwohl die Maschinerie notwen-

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ily throws men out of work in those industries into which it is introduced, yet it may, notwithstanding this, bring about an increase of employment in other industries.

↑ I.e., increasing mechanization of production is compatible with economic growth. ↓ Marx hastens to add that what he is about to discuss here (in the second half of the section) is not a refutation of the compensation theory. For this he re-formulates the compensation theory:

This effect, however, has nothing in common with the so-called theory of compensation.

dig Arbeiter verdrängt in den Arbeitszweigen, wo sie eingeführt wird, so kann sie dennoch eine Zunahme von Beschäftigung in andern Arbeitszweigen hervorrufen.

Diese Wirkung hat aber nichts gemein mit der sogenannten Kompensationstheorie.

Technical progress cannot lead to more jobs if output stays the same. Why not? Because more jobs mean more labor input, which would mean productivity has decreased instead of increased, prices have risen, therefore the innovation is not competitive. Marx tacitly bases his argument on the stylized fact that machine products are cheaper than hand-made products.

Since every article produced by a machine is cheaper than a similar article produced by hand, we deduce the following infallible law: If the total quantity of the article produced by machinery, be equal to the total quantity of the article previously produced by a handicraft or by manufacture, and now made by machinery, then the total labor expended is diminished. The new labor spent on the instruments of labor, on the machinery, on the coal, and so on, must necessarily be less than the labor displaced by the use of the machinery; otherwise the product of the machine would be as dear, or dearer, than the product of the manual labor.

Da jedes Maschinenprodukt, z.B. eine Elle Maschinengewebe, wohlfeiler ist als das von ihm verdrängte gleichartige Handprodukt, folgt als absolutes Gesetz: Bleibt das Gesamtquantum des maschinenmäßig produzierten Artikels gleich dem Gesamtquantum des von ihm ersetzten handwerks- oder manufakturmäßig produzierten Artikels, so vermindert sich die Gesamtsumme der angewandten Arbeit. Die etwa zur Produktion der Arbeitsmittel selbst, der Maschinerie, Kohle usw., erheischte Arbeitszunahme muß kleiner sein als die durch Anwendung der Maschinerie bewirkte Arbeitsabnahme. Das Maschinenprodukt wäre sonst ebenso teuer oder teurer als das Handprodukt.

↑ This principle holds, Marx calls this law “infallible” or in the German original “absolute.” The translation “infallible” is wrong because it transposes ontology into epistemology. Marx calls the law “absolute” because it is not relative to market conditions, it must hold as long as output remains the same. It would be interesting to see whether Marx’s intuition of an absolute law here can be backed up by a mathematical theorem. ↓ But in real life, output does *not* remain the same.

But, as a matter of fact, the total quantity of the articles produced by machinery with a diminished number of workmen, instead of remaining equal to, by far exceeds the total quantity of the hand-made articles that have been displaced. Suppose that 400,000 yards of cloth have been produced on power-looms by fewer weavers than could weave 100,000 yards by hand. In the quadrupled

Statt aber gleichzubleiben, wächst tatsächlich die Gesamtmasse des von einer verminderten Arbeiteranzahl produzierten Maschinenartikels weit über die Gesamtmasse des verdrängten Handwerksartikels. Gesetzt, 400 000 Ellen Maschinengewebe würden von weniger Arbeitern produziert als 100 000 Ellen Handgewebe. In dem vervierfachen Produkt steckt viermal mehr Rohmaterial.

product there lies four times as much raw material. Hence the production of raw material must be quadrupled. But as regards the instruments of labor, such as buildings, coal, machinery, and so on, it is different; the limit up to which the additional labor required for their production can increase, varies with the difference between the quantity of the machine-made article, and the quantity of the same article that the same number of workmen could make by hand.

↑ Marx says here that more output requires more raw materials. He does not share the modern illusion of de-materialization of production.

↓ Now Marx traces the effects which expansion of production in one sphere has on the other spheres.

446:1/o Hence, as the use of machinery extends in a given industry, the immediate effect is to increase production in the other industries that furnish the first with means of production. How far employment is thereby found for an increased number of men, depends, given the length of the working-day and the intensity of labor, on the composition of the capital employed, i.e., on the ratio of its constant to its variable component. This ratio, in its turn, varies considerably with the extent to which machinery has already seized on, or is then seizing on, those trades.

Note that Marx is talking about coal and metal mining. Both activities cannot be expanded at will, i.e., they are ultimately unsustainable, but Marx ignores this fact.

The number of the men condemned to work in coal and metal mines increased enormously owing to the progress of the English factory system; but during the last few decades this increase of number has been less rapid, owing to the use of new machinery in mining.²¹⁷ A new type of workman springs into life along with the machine, namely, its maker. We have already learnt that machinery has possessed itself even of this branch of production on a scale that grows greater every day.²¹⁸

²¹⁷ According to the census of 1861 (Vol. II., Lond., 1863), the number of people employed in coal mines in England and Wales, amounted to 246,613 of which 73,545 were under, and 173,067 were over 20 years. Of those under 20,

Die Produktion des Rohmaterials muß also vervierfacht werden. Was aber die verzehrten Arbeitsmittel, wie Baulichkeiten, Kohlen, Maschinen usw. betrifft, so ändert sich die Grenze, innerhalb deren die zu ihrer Produktion erheischte zusätzliche Arbeit wachsen kann, mit der Differenz zwischen der Masse des Maschinenprodukts und der Masse des von derselben Arbeitszahl herstellbaren Handprodukts.

446:2/o Mit der Ausdehnung des Maschinenbetriebs in einem Industriezweig steigert sich also zunächst die Produktion in den andren Zweigen, die ihm seine Produktionsmittel liefern. Wieweit dadurch die beschäftigte Arbeitermasse wächst, hängt, Länge des Arbeitstags und Intensität der Arbeit gegeben, von der Zusammensetzung der verwandten Kapitale ab, d.h. vom Verhältnis ihrer konstanten und variablen Bestandteile. Dies Verhältnis seinerseits variiert sehr mit dem Umfang, worin die Maschinerie jene Gewerbe selbst schon ergriffen hat oder ergreift.

Die Anzahl zu Kohlen- und Metallbergwerken verurteilter Menschen schwoll ungeheuer mit dem Fortschritt des englischen Maschinenwesens, obgleich ihr Anwachs in den letzten Dezennien durch Gebrauch neuer Maschinerie für den Bergbau verlangsamt wird.²¹⁷ Eine neue Arbeiterart springt mit der Maschine ins Leben, ihr Produzent. Wir wissen bereits, daß der Maschinenbetrieb sich dieses Produktionszweigs selbst auf stes massenhafterer Stufenleiter bemächtigt.²¹⁸

²¹⁷ Nach dem Zensus von 1861 (Vol. II, Lond. 1863) betrug die Zahl der in den Kohlenbergwerken von England und Wales beschäftigten Arbeiter 246 613, wovon 73 546 unter und 173 067 über 20 Jahre. Zur ersten Rubrik gehören 835

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835 were between 5 and 10 years, 30,701 between 10 and 15 years, 42,010 between 15 and 19 years. The number employed in iron, copper, lead, tin, and other mines of every description, was 319,222.

²¹⁸ In England and Wales, in 1861, there were employed in making machinery, 60,807 persons, including the masters and their clerks, etc., also all agents and business people connected with this industry, but excluding the makers of small machines, such as sewing-machines, etc., as also the makers of the operative parts of machines, such as spindles. The total number of civil engineers amounted to 3,329.

Link cotton—slavery and wool—depopulation of Ireland.

As to raw material,²¹⁹ there is not the least doubt that the rapid strides of cotton spinning, not only pushed on with tropical luxuriance the growth of cotton in the United States, and with it the African slave trade, but also made the breeding of slaves the chief business of the border slave-states. When, in 1790, the first census of slaves was taken in the United States, their number was 697,000; in 1861 it had nearly reached four millions.

↑ Clearly, without capitalism, slavery would not have increased so much. But Hans thinks that the ability of slavery to increase so quickly also enabled capitalist growth.

On the other hand, it is no less certain that the rise of the English woollen factories, together with the gradual conversion of arable land into sheep pasture, brought about the superfluity of agricultural laborers that led to their being driven in masses into the towns. Ireland, having during the last twenty years reduced its population by nearly one half, is at this moment undergoing the process of still further reducing the number of its inhabitants, so as exactly to suit the requirements of its landlords and of the English woollen manufacturers.

²¹⁹ Since iron is one of the most important raw materials; let me here state that, in 1861, there were in England and Wales 125,771 operative iron founders, of whom 123,430 were main 2,341 females. Of the former 30,810 were under, and 92,620 over 20 years.

↓ Coal?

fünf- bis zehnjährige, 30 701 zehn- bis fünfzehn-jährige, 42 010 fünfzehn- bis neunzehnjährige. Die Zahl der in Eisen-, Kupfer-, Blei-, Zinn- und allen andren Metallminen Beschäftigten: 319 222.

²¹⁸ In England und Wales 1861 in der Produktion von Maschinerie beschäftigt: 60 807 Personen, eingezählt die Fabrikanten samt ihren Kommiss usw., ditto alle Agenten und Handelsleute in diesem Fach. Ausgeschlossen dagegen die Produzenten kleinerer Maschinen, wie Nähmaschinen usw., ebenso die Produzenten der Werkzeuge für die Arbeitsmaschinen, wie Spindeln usw. Zahl sämtlicher Zivilingenieure betrug 3329.

Was ferner das Rohmaterial betrifft,²¹⁹ so unterliegt es z.B. keinem Zweifel, daß der Sturmarsch der Baumwollspinnerei den Baumwollbau der Vereinigten Staaten und mit ihm nicht nur den afrikanischen Sklavenhandel treibhausmäßig förderte, sondern zugleich die Negerzucht zum Hauptgeschäft der sogenannten Grenz-Sklavenstaaten machte. Als 1790 der erste Sklavenzensus in den Vereinigten Staaten aufgenommen ward, betrug ihre Zahl 697 000, dagegen 1861 ungefähr vier Millionen.

Andrerseits ist es nicht minder gewiß, daß das Aufblühen der mechanischen Wollfabrik mit der progressiven Verwandlung von Ackerland in Schafweide die massenhafte Verjagung und „Überzähligmachung“ der Landarbeiter hervorrief. Irland macht noch in diesem Augenblick den Prozeß durch, seine seit 1845 beinahe um die Hälfte verminderte Bevölkerung noch weiter auf das dem Bedürfnis seiner Landlords und der englischen Herrn Wollfabrikanten exakt entsprechende Maß herabzudrücken.

²¹⁹ Da Eisen einer der wichtigsten Rohstoffe, so sei hier bemerkt, daß 1861 in England und Wales 125 771 Eisengießer, wovon 123 430 männlich, 2341 weiblich. Von den erstern 30 810 unter und 92 620 über 20 Jahre.

447:1 When machinery is applied to any of the preliminary or intermediate stages through which the object of labor has to pass on its way to completion, there is an increased yield of material in those stages, and simultaneously an increased demand for labor in the handicrafts or manufactures supplied by the produce of the machines. Spinning by machinery, for example, supplied yarn so cheaply and so abundantly that the hand-loom weavers were, at first, able to work full time without increased outlay. Their earnings accordingly rose.²²⁰ Hence a flow of people into the cotton-weaving trade, till at length the 800,000 weavers, called into existence by the Jenny, the throstle and the mule, were overwhelmed by the power-loom. So also, owing to the abundance of clothing materials produced by machinery, the number of tailors, seamstresses and needlewomen, went on increasing until the appearance of the sewing-machine.

²²⁰ "A family of four grown-up persons, with two children as winders, earned at the end of the last, and the beginning of the present century, by ten hours' daily labour, £4 a week. If the work was very pressing, they could earn more . . . Before that, they had always suffered from a deficient supply of yarn." (Gaskell, l.c., pp. 25–27.)

447:2/o In proportion as machinery, with the aid of a relatively small number of workpeople, increases the mass of raw materials, intermediate products, instruments of labor, etc., the working-up of these raw materials and intermediate products becomes split up into numberless branches; social production increases in diversity. The factory system carries the social division of labor immeasurably further than does manufacture, for it increases the productiveness of the industries it seizes upon, in a far higher degree.

Those consequences of machinery coming from the increase in the rate of surplus-value. Here the difference between productive and unproductive labor enters! Final effect of machinery is increase in unproductive class, as stated in first sentence of the chapter. However Marx lets himself be sidetracked here. He says that capitalist productivity increases do not benefit the workers. The other question which would be logical to ask, how continued in-

467:1/o Ergreift die Maschinerie Vor- und Zwischenstufen, welche ein Arbeitsgegenstand bis zu seiner letzten Form zu durchlaufen hat, so vermehrt sich mit dem Arbeitsmaterial die Arbeitsnachfrage in den noch handwerks- oder manufakturmäßig betriebenen Gewerken, worin das Maschinenfabrikat eingeht. Die Maschinenspinnerei z.B. lieferte das Garn so wohlfeil und so reichlich, daß die Handweber zunächst, ohne vermehrte Auslage, volle Zeit arbeiten konnten. So steig ihr Einkommen.²²⁰ Daher Menschenzufluß in die Baumwollweberei, bis schließlich die von Jenny, Throstle und Mule in England z.B. ins Leben gerufenen 800 000 Baumwollweber wieder vom Dampfwebstuhl erschlagen wurden. So wächst mit dem Überfluß der maschinenmäßig produzierten Kleidungsstoffe die Zahl der Schneider, Kleidermacherinnen, Näherinnen usw., bis die Nähmaschine erscheint.

²²⁰ „Eine Familie von 4 erwachsenen Personen (Baumwollwebern) mit zwei Kindern als winders gewann Ende des letzten und Anfang des gegenwärtigen Jahrhunderts 4 Pfd.St. per Woche bei 10stündiger Tagesarbeit; war die Arbeit sehr dringend, so konnten sie mehr verdienen . . . Früher hatten sie immer gelitten von mangelnder Garnzufuhr.“ (Gaskell, l.c. p. 34, 35.)

468:1 Entsprechend der steigenden Masse von Rohstoffen, Halbfabrikaten, Arbeitsinstrumenten usw., die der Maschinenbetrieb mit relativ geringer Arbeitszahl liefert, sondert sich die Bearbeitung dieser Rohstoffe und Halbfabrikate in zahllose Unterarten, wächst also die Mannigfaltigkeit der gesellschaftlichen Produktionszweige. Der Maschinenbetrieb treibt die gesellschaftliche Teilung der Arbeit ungleich weiter als die Manufaktur, weil er die Produktivkraft der von ihm ergriffnen Gewerbe in ungleich höherem Grad vermehrt.

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creases in productivity are possible in the face of a static supply of raw materials in the earth, will be answered after this:

FIXME: connections of this with what Marx says in section 2 and section 7!

448:1 The immediate result of machinery is to augment surplus-value and the mass of products in which surplus-value is embodied. And, as the substances consumed by the capitalists and their dependents become more plentiful, so too do these orders of society. Their growing wealth, and the relatively diminished number of workmen required to produce the necessities of life beget, simultaneously with the rise of new and luxurious wants, the means of satisfying those wants. A larger portion of the produce of society is changed into surplus-produce, and a larger part of the surplus-produce is supplied for consumption in a multiplicity of refined shapes. In other words, the production of luxuries increases.²²¹

²²¹ F. Engels, in "Lage, etc.," points out the miserable condition of a large number of those who work on these very articles of luxury. See also numerous instances in the "Reports of the Children's Employment Commission."

↓ But now very interesting: some of this extra luxury product comes from overseas, and from there Marx makes the transition that luxury products are not the only thing imported; also raw materials come from overseas. This is for Marx another example how capitalism creates the conditions of its own existence: capitalism creates international trade relations (a modern word would be globalization), and these trade relations bring luxury goods to be consumed by the capitalists as well as raw materials needed for the ever expanding production.

The refined and varied forms of the products are also due to new relations with the markets of the world, relations that are created by Modern Industry. Not only are greater quantities of foreign articles of luxury exchanged for home products, but a greater mass of foreign raw materials, ingredients, and intermediate products, are used as means of production in the home industries. Owing to these relations with the markets of the world, the demand for labor increases in the carrying trades, which split up into numerous varieties.²²²

²²² In 1861, in England and Wales, there were

468:2/o Das nächste Resultat der Maschinerie ist, den Mehrwert und zugleich die Produktenmasse, worin er sich darstellt, also mit der Substanz, wovon die Kapitalistenklasse samt Anhang zehrt, diese Gesellschaftsschichten selbst zu vergrößern. Ihr wachsender Reichtum und die relativ beständig fallende Anzahl der zur Produktion der ersten Lebensmittel erheischten Arbeiter erzeugen mit neuem Luxusbedürfnis zugleich neue Mittel seiner Befriedigung. Ein größerer Teil des gesellschaftlichen Produkts verwandelt sich in Surplusprodukt und ein größerer Teil des Surplusprodukts wird in verfeinerten und vermännigfachen Formen reproduziert und verzehrt. In andren Worten: Die Luxusproduktion wächst.²²¹

²²¹ F. Engels in „Lage usw.“ weist den jämmerlichen Zustand eines großen Teils grade dieser Luxusarbeiter nach. Massenhafte neue Belege hierzu in den Berichten der „Child. Empl. Comm.“

Die Verfeinerung und Vermännigfachung der Produkte entspringt ebenso aus den neuen weltmarktlichen Beziehungen, welche die große Industrie schafft. Es werden nicht nur mehr ausländische Genußmittel gegen das heimische Produkt ausgetauscht, sondern es geht auch eine größere Masse fremder Rohstoffe, Ingredienzien, Halbfabrikate usw. als Produktionsmittel in die heimische Industrie ein. Mit diesen weltmarktlichen Beziehungen steigt die Arbeitsnachfrage in der Transportindustrie und spaltet sich letztere in zahlreiche neue Unterarten.²²²

²²² 1861 in England und Wales 94 665 in der

94,665 sailors in the merchant service.

Handelsmarine beschäftigte Seeleute.

But transportation is very dependent on energy. without fast and cheap transportation, all this specialization and trade would be impossible. See [Wri10].

New industries made possible by machinery. 3 of them in communication. Link between energy and communication/organization.

448:2/o The increase of the means of production and subsistence, accompanied by a relative diminution in the number of laborers, causes an increased demand for labor in making canals, docks, tunnels, bridges, and so on, works that can only bear fruit in the far future. Entirely new branches of production, creating new fields of labor, are also formed, as the direct result either of machinery or of the general industrial changes brought about by it.

469:1 Die Vermehrung von Produktions- und Lebensmitteln bei relativ abnehmender Arbeiterzahl treibt zur Ausdehnung der Arbeit in Industriezweigen, deren Produkte, wie Kanäle, Warendocks, Tunneln, Brücken usw., nur in fernrer Zukunft Früchte tragen. Es bilden sich, entweder direkt auf der Grundlage der Maschinerie, oder doch der ihr entsprechenden allgemeinen industriellen Umwälzung, ganz neue Produktionszweige und daher neue Arbeitsfelder.

Marx overlooks here too that modern industrial production not only makes these communications possible but also very much depends on cheap communication. ↓ They do not take much labor because they must be cheap, and they can only be cheap because of fossil fuels.

But the place occupied by these branches in the general production is, even in the most developed countries, far from important. The number of laborers that find employment in them is directly proportional to the demand, created by those industries, for the crudest form of manual labor. The chief industries of this kind are, at present, gas-works, telegraphs, photography, steam navigation, and railways. According to the census of 1861 for England and Wales, we find in the gas industry (gas-works, production of mechanical apparatus, servants of the gas companies, etc), 15,211 persons; in telegraphy, 2,399; in photography, 2,366; steam navigation, 3,570; and in railways, 70,599, of whom the unskilled “navvies,” more or less permanently employed, and the whole administrative and commercial staff, make up about 28,000. The total number of persons, therefore, employed in these five new industries amounts to 94,145.

Ihr Raumanteil an der Gesamtproduktion ist jedoch selbst in den meistentwickelten Ländern keineswegs bedeutend. Die Anzahl der von ihnen beschäftigten Arbeiter steigt im direkten Verhältnis, worin die Notwendigkeit rohster Handarbeit reproduziert wird. Als Hauptindustrien dieser Art kann man gegenwärtig Gaswerke, Telegraphie, Photographie, Dampfschiffahrt und Eisenbahnwesen betrachten. Der Zensus von 1861 (für England und Wales) ergibt in der Gasindustrie (Gaswerke, Produktion der mechanischen Apparate, Agenten der Gas-kompagnien usw.) 16 211 Personen, Telegraphie 2399, Photographie 2366, Dampfschiffdienst 3570 und Eisenbahnen 70 599, worunter ungefähr 28 000 mehr oder minder permanent beschäftigte „ungeschickte“ Erdarbeiter nebst dem ganzen administrativen und kommerziellen Personal. Also Gesamtzahl der Individuen in diesen fünf neuen Industrien 94 145.

↑ Also mainstream economists underestimate the importance of raw materials and energy for the economy because they are so cheap, they do not take up a large percentage of GNP.

449:1–450:1 Lastly, the extraordinary productiveness of modern industry, accompanied as it is by both a more extensive and a more intense exploitation of labor-power

469:2–470:2 Endlich erlaubt die außerordentlich erhöhte Produktivkraft in den Sphären der großen Industrie, begleitet, wie sie ist, von intensiv und extensiv gesteig-

in all other spheres of production, allows of the unproductive employment of a larger and larger part of the working-class, and the consequent reproduction, on a constantly extending scale, of the ancient domestic slaves under the name of a servant class, including men-servants, women-servants, lackeys, etc. According to the census of 1861, the population of England and Wales was 20,066,244; of these, 9,776,259 males, and 10,289,965 females. If we deduct from this population all who are too old or too young for work, all unproductive women, young persons and children, the “ideological” classes, such as government officials, priests, lawyers, soldiers, etc.; further, all who have no occupation but to consume the labor of others in the form of rent, interest, etc.; and, lastly, paupers, vagabonds, and criminals, there remain in round numbers eight millions of the two sexes of every age, including in that number every capitalist who is in any way engaged in industry, commerce, or finance. Among these 8 millions are:

- All the person described in 30698224 Personen

gter Ausbeutung der Arbeitskraft in allen übrigen Produktionssphären, einen stets größeren Teil der Arbeiterklasse unproduktiv zu verwenden und so namentlich die alten Haussklaven unter dem Namen der „dienenden Klasse“, wie Bediente, Mägde, Lakaien usw., stets massenhafter zu reproduzieren. Nach dem Zensus von 1861 zählte die Gesamtbevölkerung von England und Wales 20 066 224 Personen, wovon 9 776 259 männlich und 10 289 965 weiblich. Zieht man hiervon ab, was zu alt oder zu jung zur Arbeit, alle „unproduktiven“ Weiber, jungen Personen und Kinder, dann die „ideologischen“ Stände, wie Regierung, Pfaffen, Juristen, Militär usw., ferner alle, deren ausschließliches Geschäft der Verzehr fremder Arbeit in der Form von Grundrenten, Zins usw., endlich Paupers, Vagabunden, Verbrecher usw., so bleiben in rauher Zahl 8 Millionen beiderlei Geschlechts und der verschiedensten Altersstufen, mit Einschluß sämtlicher irgendwie in der Produktion, dem Handel, der Finanz usw. funktionierenden Kapitalisten. Von diesen 8 Mil-

²²³ Davon nur 177 596 männlichen Geschlechts über 13 Jahre.

968

15.7. Repulsion and Attraction of Laborers. Crises of the Cotton Industry

²²⁴ Of these, 30,501 are females.

²²⁵ Of these, 137,447 males. None are included in the 1,208,648 who do not serve in private houses.

^{225 ctd} Between 1861 and 1870 the number of male servants nearly doubled itself. It increased to 267,671. In the year 1847 there were 2,694 gamekeepers (for the landlords' preserves), in 1869 there were 4,921. The young servant girls in the houses of the London lower middle class are in common parlance called "slaveys."

²²⁴ Davon weiblichen Geschlechts 30 501.

²²⁵ Davon männlichen Geschlechts: 137 447. Ausgeschlossen von den 1 208 648 alles Personal, das nicht in Privathäusern dient.

^{225 ctd} Zusatz zur 2. Ausg. Von 1861 bis 1870 hat sich die Zahl männlicher Diener beinahe verdoppelt. Sie war angewachsen auf 267 671. Im Jahr 1847 gab es 2694 Wildhüter (für die aristokratischen Wildgehege), 1869 dagegen 4921.— Die jungen, beim Londoner kleinen Spießbürger dienenden Mädchen hießen in der Volkssprache „little slaveys“, kleine Sklaven.

Marx's point here is: the increase in productive labor in other industries is less than the increase in domestic servants. I.e., the compensation theory means that new jobs can indeed be found, namely, as a domestic slave for some rich fart. But Marx also showed that slavery in the colonies has increased, and here he should have included also the slave-labor or quasi slave-labor in colonial mines. What Marx overlooks is that transportation and communication are very energy-intensive, and that the globalization of production would not have been possible without cheap fossil fuels.

15.7. Repulsion and Attraction of Laborers with the Development of Machinery. Crises of the Cotton Industry

Questions about section 7

Question 1024 *Under what conditions will the introduction of machinery under capitalism ultimately lead to the employment of more workers than before?*

Question 1025 *What is the composition of capital?*

Question 1026 *Why does the growth of the workforce under capitalism not take place steadily but in the ebb and of the attraction and repulsion of workers by capital?*

Machinery "in itself" decreases labor and increases wealth. Capitalist machinery impoverishes the workers it displaces and increases labor overall. This increase is seen as the big advantage compensating for the misery of those displaced. Marx has only sarcasm for this.

450:2 Those political economists who have preserved their sanity admit that the introduction of new machinery has a baneful effect on the workmen in the old handicrafts and manufactures with which this machinery at first competes. Almost all of them bemoan the slavery of the factory operative. And what is the great trump-card that they play? That machinery, after the horrors of the period of introduction and development have subsided, instead of diminishing,

470:3/o Alle zurechnungsfähigen Repräsentanten der politischen Ökonomie geben zu, daß neue Einführung der Maschinerie pestartig wirkt auf die Arbeiter in den überlieferten Handwerken und Manufakturen, womit sie zunächst konkurriert. Fast alle beächnen die Sklaverei des Fabrikarbeiters. Und was ist der große Trumpf, den alle ausspielen? Daß die Maschinerie, nach den Schrecken ihrer Einführungs- und Entwicklungsperiode, die Arbeitssklaven in letzter

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in the long run increases the number of the slaves of labor! Yes, Political Economy revels in the hideous theory, hideous to every “philanthropist” who believes in the eternal Nature-ordained necessity for capitalist production, that after a period of growth and transition, even its crowning success, the factory system based on machinery, grinds down more workpeople than on its first introduction it throws on the streets.²²⁶

²²⁶ Ganilh, on the contrary, considers the final result of the factory system to be an absolutely less number of operatives, at whose expense an increased number of “gens honnêtes” live and develop their well-known “perfectibilité perfectible.” Little as he understands the movement of production, at least he feels, that machinery must be a very fatal institution, if its introduction converts busy workmen into paupers, and its development calls more slaves of labor into existence than it has suppressed. It is not possible to bring out the cretinism of his standpoint, except by his own words: “Les classes condamnées à produire et à consommer diminuent, et les classes qui dirigent le travail, qui soulagent, consolent, et éclairent toute la population, se multiplient . . . et s’approprient tous les bienfaits qui résultent de la diminution des frais du travail, de l’abondance des productions, et du bon marché des consommations. Dans cette direction, l’espèce humaine s’élève aux plus hautes conceptions du génie, pénètre dans les profondeurs mystérieuses de la religion, établit les principes salutaires de la morale (which consists in ‘s’approprier tous les bienfaits,’ etc.), les lois tutélaires de la liberté (liberty of ‘les classes condamnées à produire?’) et du pouvoir, de l’obéissance et de la justice, du devoir et de la l’humanité.” For this twaddle, see “Des Systèmes d’Economie Politique, etc.,” Par M. Ch. Ganilh, 2ème ed., Paris, 1821, t. I, p. 224, and see p. 212.

↓ Statistics about steam engines:

451 It is true that in some cases, as we saw from instances of English worsted and silk factories, an extraordinary extension of the factory system may, at a cer-

Instanz vermehrt, statt sie schließlich zu vermindern! Ja, die politische Ökonomie jubelt sich aus in dem abscheulichen Theorem, abscheulich für jeden „Philanthropen“, der an die ewige Naturnotwendigkeit der kapitalistischen Produktionsweise glaubt, daß selbst die bereits auf Maschinenbetrieb begründete Fabrik, nach bestimmter Periode des Wachstums, nach kürzrer oder längerer „Übergangszeit“, mehr Arbeiter abplackt, als sie ursprünglich aufs Pflaster warf!²²⁶

²²⁶ Ganilh betrachtet dagegen als Schlußresultat des Maschinenbetriebs absolut verminderte Anzahl der Arbeitssklaven, auf deren Kosten dann eine vermehrte Anzahl der „gens honnêtes“ zehrt und ihre bekannte „perfectibilité perfectible“ entwickelt. So wenig er die Bewegung der Produktion versteht, fühlt er wenigstens, daß die Maschinerie eine sehr fatale Institution, wenn ihre Einführung beschäftigte Arbeiter in Paupers verwandelt, während ihre Entwicklung mehr Arbeitssklaven ins Leben ruft, als sie erschlagen hat. Den Kretinismus seines eignen Standpunkts kann man nur in seinen eignen Worten ausdrücken: „Die Klassen, die dazu verdammt sind, zu produzieren und zu konsumieren, vermindern sich, und die Klassen, die die Arbeit leiten, der ganzen Bevölkerung Linderung, Trost und Einsicht bringen, vermehren sich . . . und eignen sich alle Vorteile an, die sich aus den Verringerung der Arbeitskosten, dem Überfluß an Waren und dem niedrigen Preis der Konsumgüter ergeben. Unter dieser Leitung erhebt sich das Menschengeschlecht zu den höchsten Schöpfungen des Genies, durchdringt die geheimnisvollen Tiefen der Religion, stellt die heilsamen Grundsätze der Moral auf“ (die darin besteht „sich alle Vorteile anzueignen usw.“), „die Gesetze zum Schutze der Freiheit“ (der Freiheit für „die Klassen, die dazu verdammt sind, zu produzieren“?) „und der Macht, des Gehorsams und der Gerechtigkeit, der Pflicht und der Menschlichkeit.“ Dies Kauderwelsch in „Des Systèmes d’Économie Politique etc.“ Par M. Ch. Ganilh, 2ème éd., Paris 1821, t. I, p. 224, cf. ib p. 212.

471:1–472:1 Zwar zeigte sich schon an einigen Beispielen, z.B. den englischen Worsted- und Seidenfabriken, daß auf einem gewissen Entwicklungsgrad außer-

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tain stage of its development, be accompanied not only by a relative, but by an absolute decrease in the number of operatives employed. In the year 1860, when a special census of all the factories in the United Kingdom was taken by order of Parliament, the factories in those parts of Lancashire, Cheshire, and Yorkshire, included in the district of Mr. Baker, the factory inspector, numbered 652; 570 of these contained 85,622 power-loom, 6,819,146 spindles (exclusive of doubling spindles), employed 27,439 horse-power (steam), and 1,390 (water), and 94,119 persons. In the year 1865, the same factories contained, looms 95,163, spindles 7,025,031, had a steam-power of 28,925 horses, and a water-power of 1,445 horses, and employed 88,913 persons. Between 1860 and 1865, therefore, the increase in looms was 11%, in spindles 3%, and in engine-power 3%, while the number of persons employed decreased 5 1/2%.²²⁷ Between 1852 and 1862, considerable extension of the English woollen manufacture took place, while the number of hands employed in it remained almost stationary, showing

how greatly the introduction of new machines had superseded the labor of preceding periods.²²⁸

²²⁷ "Reports of Insp. of Fact., 31 Oct., 1865," p. 58, sq. At the same time, however, means of employment for an increased number of hands was ready in 110 new mills with 11,625 looms, 628,576 spindles and 2,695 total horse-power of steam and water (l.c.).

²²⁸ "Reports, etc., for 31 Oct., 1862," p. 79. At the end of 1871, Mr. A. Redgrave, the factory inspector, in a lecture given at Bradford, in the New Mechanics' Institution, said: "What has struck me for some time past is the altered appearance of the woollen factories. Formerly they were filled with women and children, now machinery seems to do all the work. At my asking for an explanation of this from a manufacturer, he gave me the following: 'Under the old system

ordentliche Ausdehnung von Fabrikzweigen mit nicht nur relativer, sondern absoluter Abnahme der angewandten Arbeiteranzahl verbunden sein kann. Im Jahr 1860, als ein Spezialzensus aller Fabriken des Vereinigten Königreichs auf Befehl des Parlaments aufgenommen ward, zählte die dem Fabrikinspektor *R. Baker* zugewiesene Abteilung der Fabrikdistrikte von Lancashire, Cheshire und Yorkshire 652 Fabriken; von diesen enthielten 570: Dampfwebstühle 85 622, Spindeln (mit Ausschluß der Dublierspindeln) 6 819 156, Pferdekraft in Dampfmaschinen 27 439, in Wasserrädern 1390, beschäftigte Personen 94 119. Im Jahr 1865 dagegen enthielten dieselben Fabriken: Webstühle 95 163, Spindeln 7 025 031, Pferdekraft in Dampfmaschinen 28 925, in Wasserrädern 1445, beschäftigte Personen 88 913. Von 1860 bis 1865 betrug also die Zunahme dieser Fabriken an Dampfwebstühlen 11%, an Spindeln 3%, an Dampfperdekraft 5%, während gleichzeitig die Zahl der beschäftigten Personen um 5,5% abnahm.²²⁷ Zwischen 1852 und 1862 fand beträchtliches Wachstum der englischen Wollfabrikation statt, während die Zahl der angewandten Arbeiter beinahe stationär blieb.

„Dies zeigt, in wie großem Maße neu eingeführte Maschinerie die Arbeit vorhergehender Perioden verdrängt hatte.“²²⁸

²²⁷ „Reports of Insp. of Fact., 31st Oct. 1865“, p. 58 sq. Gleichzeitig war aber auch schon die materielle Grundlage für Beschäftigung einer wachsenden Arbeiterzahl gegeben in 110 neuen Fabriken mit 11 625 Dampfwebstühlen, 628 576 Spindeln, 2695 Dampf- und Wasser-Pferdekraft. (l.c.)

²²⁸ „Reports etc. for 31st Oct. 1862“, p. 79. Zusatz zur 2. Ausg. Ende Dezember 1871 sagte Fabrikinspektor A. Redgrave in einem Vortrag, gehalten zu Bradford, in der „New Mechanics' Institution“: „Was mich seit einiger Zeit frappiert hat, war die veränderte Erscheinung der Wollfabriken. Früher waren sie mit Weibern und Kindern gefüllt, jetzt scheint die Maschinerie alles Werk zu tun. Auf Anfrage gab mir ein Fabrikant folgenden Aufschluß: Unter dem alten System

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I employed 63 persons; after the introduction of improved machinery I reduced my hands to 33, and lately, in consequence of new and extensive alterations, I have been in a position to reduce those 33 to 13.”

In certain cases, the increase in the number of hands employed is only apparent; that is, it is not due to the extension of the factories already established, but to the gradual annexation of connected trades; for instance, the increase in power-looms, and in the hands employed by them between 1838 and 1856, was, in the cotton trade, simply owing to the extension of this branch of industry; but in the other trades to the application of steam-power to the carpet-loom, to the ribbon-loom, and to the linen-loom, which previously had been worked by the power of men.²²⁹ Hence the increase of the hands in these latter trades was merely a symptom of a diminution in the total number employed. Finally, we have considered this question entirely apart from the fact, that everywhere, except in the metal industries, young persons (under 18), and women and children form the preponderating element in the class of factory hands.

²²⁹ See “Reports, etc., 31 Oct., 1856,” p. 16.

452:2/o Nevertheless, in spite of the mass of hands actually displaced and virtually replaced by machinery, we can understand how the factory operatives, through the building of more mills and the extension of old ones in a given industry, may become more numerous than the manufacturing workmen and handicraftsman that have been displaced. Suppose, for example, that in the old mode of production, a capital of £500 is employed weekly, two-fifths being constant and three-fifths variable capital, *i.e.*, £200 being laid out in means of production, and £300, say £1 per man, in labor-power. On the introduction of machinery the composition of this capital becomes altered. We will suppose it to consist of four-fifths constant and one-fifth variable,

beschäftigte ich 63 Personen; nach Einführung verbesserter Maschinerie reduzierte ich meine Hände auf 33, und jüngst, infolge neuer großer Veränderungen war ich imstande, sie von 33 auf 13 zu reduzieren.“

472:1/o In empirisch gegebenen Fällen ist die Zunahme der beschäftigten Fabrikarbeiter oft nur scheinbar, d.h. nicht der Ausdehnung der bereits auf Maschinenbetrieb beruhenden Fabrik geschuldet, sondern der allmählichen Annexation von Nebenzweigen. Z.B. die Zunahme der mechanischen Webstühle und der durch sie beschäftigten Fabrikarbeiter von 1838–1858 war in der (britischen) Baumwollfabrik einfach der Ausdehnung dieses Geschäftszweigs geschuldet; in den andren Fabriken dagegen der Neuanwendung von Dampfkraft auf den Teppich-, Band-, Leinenwebstuhl usw., die vorher durch menschliche Muskelkraft getrieben wurden.²²⁹ Die Zunahme dieser Fabrikarbeiter war also nur der Ausdruck einer Abnahme in der Gesamtzahl der beschäftigten Arbeiter. Es wird hier endlich ganz davon abgesehen, daß überall, mit Ausnahme der Metallfabriken, jugendliche Arbeiter (unter 18 Jahren), Weiber und Kinder das weit vorwiegende Element des Fabrikpersonals bilden.

²²⁹ „Reports etc. for 31st Oct. 1856“, p. 16.

473:1/o Man begreift jedoch, trotz der vom Maschinenbetrieb faktisch verdrängten und virtuell ersetzten Arbeitermasse, wie mit seinem eignen Wachstum, ausgedrückt in vermehrter Anzahl von Fabriken derselben Art oder den erweiterten Dimensionen vorhandner Fabriken, die Fabrikarbeiter schließlich zahlreicher sein können als die von ihnen verdrängten Manufakturarbeiter oder Handwerker. Das wöhentlich angewandte Kapital von 500 Pfd.St. bestehe z.B. in der alten Betriebsweise aus 2/5 konstantem und 3/5 variablem Bestandteil, d.h. 200 Pfd.St. seien in Produktionsmitteln ausgelegt, 300 Pfd.St. in Arbeiterkraft, sage 1 Pfd.St. per Arbeiter. Mit dem Maschinenbetrieb verwandelt sich die Zusammensetzung des Gesamtkapitals. Es zerfällt jetzt

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which means that only £100 is now laid out in labor-power. Consequently, two-thirds of the workmen are discharged. If now the business extends, and the total capital employed grows to £1,500 under unchanged conditions, the number of operatives employed will increase to 300, just as many as before the introduction of the machinery. If the capital further grows to £2,000, 400 men will be employed, or one-third more than under the old system. Their numbers have, in point of fact, increased by 100, but relatively, i.e., in proportion to the total capital advanced, they have diminished by 800, for the £2,000 capital would, in the old state of things, have employed 1,200 instead of 400 men. Hence, a relative decrease in the number of hands is consistent with an actual increase. We assumed above that while the total capital increases, its composition remains the same, because the conditions of production remain constant. But we have already seen that, with every advance in the use of machinery, the constant component of capital, that part which consists of machinery, raw material, etc., increases, while the variable component, the part laid out in labor-power, decreases. We also know that in no, other system of production is improvement so continuous, and the composition of the capital employed so constantly changing as in the factory system. These changes are, however, continually interrupted by periods of rest, during which there is a mere quantitative extension of the factories on the existing technical basis. During such periods the operatives increase in number. Thus, in 1835, the total number of operatives in the cotton, woollen, worsted, flax, and silk factories of the United Kingdom was only 354,684; while in 1861 the number of the power-loom weavers alone (of both sexes and of all ages, from eight years upwards), amounted to 230,654. Certainly, this growth appears less important when we consider that in 1838 the hand-loom weavers with their families still numbered 800,000,²³⁰ not to mention

z.B. in $\frac{4}{5}$ konstanten und $\frac{1}{5}$ variablen Bestandteil, oder es werden nur noch 100 Pfd.St. in Arbeitskraft ausgelegt. Zwei Drittel der früher beschäftigten Arbeiter werden also entlassen. Dehnt sich dieser Fabrikbetrieb aus und wächst bei sonst gleichbleibenden Produktionsbedingungen das angewandte Gesamtkapital von 500 auf 1500, so werden jetzt 300 Arbeiter beschäftigt, so viele wie vor der industriellen Revolution. Wäst das angewandte Kapital weiter auf 2000, so werden 400 Arbeiter beschäftigt, also $\frac{1}{3}$ mehr als mit der alten Betriebsweise. Absolut ist die angewandte Arbeiterzahl um 100 gestiegen, relativ, d.h. im Verhältnis zum vorgeschossenen Gesamtkapital, ist sie um 800 gefallen, denn das Kapital von 2000 Pfd.St. hätte in der alten Betriebsweise 1200 statt 400 Arbeiter beschäftigt. Relative Abnahme der beschäftigten Arbeiterzahl verträgt sich also mit ihrer absoluten Zunahme. Es wurde oben angenommen, daß mit dem Wachstum des Gesamtkapitals seine Zusammensetzung konstant bleibt, weil die Produktionsbedingungen. Man weiß aber bereits, daß mit jedem Fortschritt des Maschinenwesens der konstante, aus Maschinerie, Rohmaterial usw. bestehende Kapitalteil wächst, während der variable, in Arbeitskraft ausgelegte fällt, und man weiß zugleich, daß in keiner andren Betriebsweise die Verbeßrung so konstant, daher die Zusammensetzung des Gesamtkapitals so variabel ist. Dieser beständige Wechsel ist aber ebenso beständig unterbrochen durch Ruhepunkte und bloß quantitative Ausdehnung auf gegebner technischer Grundlage. Damit wächst die Anzahl der beschäftigten Arbeiter. So betrug die Anzahl aller Arbeiter in den Baumwoll-, Woll-, Worsted-, Flachs- und Seidenfabriken des Vereinigten Königreichs 1835 nur 354 684, während 1861 allein die Zahl der Dampfweber (beiderlei Geschlechts und der verschiedensten Altersstufen vom 8. Jahr an) 230 654 betrug. Allerdings erscheint dies Wachstum minder groß, wenn man erwägt, daß die britischen Handbaumwollweber mit den von ih-

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those thrown out of work in Asia, and on the Continent of Europe.

²³⁰ “The sufferings of the hand-loom weavers were the subject of an inquiry by a Royal Commission, but although their distress was acknowledged and lamented, the amelioration of their condition was left, and probably necessarily so, to the chances and changes of time, which it may now be hoped” [20 years later!] “have nearly obliterated those miseries, and not improbably by the present great extension of the power-loom.” (“Rep. Insp. of Fact., 31 Oct., 1856,” p. 15.)

453:1 In the few remarks I have still to make on this point, I shall touch, in part purely factually, on relations to which our theoretical investigation has not yet lead us.

453:2/o So long as, in a given branch of industry, the factory system extends itself at the expense of the old handicrafts or of manufacture, the result is as sure as is the result of an encounter between an army furnished with breach-loaders, and one armed with bows and arrows. This first period, during which machinery conquers its field of action, is of decisive importance owing to the extraordinary profits that it helps to produce. These profits not only form a source of accelerated accumulation, but also attract into the favoured sphere of production a large part of the additional social capital that is being constantly created, and is ever on the look-out for new investments. The special advantages of this first period of fast and furious activity are felt in every branch of production that machinery invades. So soon, however, as the factory system has gained a certain breadth of footing and a definite degree of maturity, and, especially, so soon as its technical basis, machinery, is itself produced by machinery; so soon as coal mining and iron mining, the metal industries, and the means of transport have been revolutionised; so soon, in short, as the gen-

nen selbst beschäftigten Familien 1838 noch 800 000 zählten,²³⁰ ganz abgesehen von den in Asien und auf dem europäischen Kontinent verdrängten.

²³⁰ „Die Leiden der Handweber“ (von Baumwolle und mit Baumwolle gemischten Stoffen) „waren Gegenstand der Untersuchung durch eine königl. Kommission, aber obgleich ihr Elend anerkannt und bejammert wurde, überließ man die Verbeßrung (!) ihrer Lage dem Zufall und dem Wechsel der Zeit, und man darf hoffen, daß diese Leiden jetzt“ (20 Jahre später!) „beinahe (nearly) erloschen sind, wozu die jetzige große Ausdehnung der Dampfwebstühle aller Wahrscheinlichkeit nach beigetragen hat.“ „Rep. Insp. Fact., 31st Oct. 1856“, p. 15.)

474:1 In den wenigen Bemerkungen, die über diesen Punkt noch zu machen, berühren wir zum Teil rein tatsächlich Verhältnisse, wozu unsre theoretische Darstellung selbst noch nicht geführt hat.

474:2/o Solange sich der Maschinenbetrieb in einem Industriezweig auf Kosten des überlieferten Handwerks oder der Manufaktur ausdehnt, sind seine Erfolge so sicher, wie etwa der Erfolg einer mit dem Zündnadelgewehr bewaffneten Armee gegen eine Armee von Bogenschützen wäre. Diese erste Periode, worin die Maschine erst ihren Wirkungskreis erobert, ist entscheidend wichtig wegen der außerordentlichen Profite, die sie produzieren hilft. Diese bilden nicht nur an und für sich eine Quelle beschleunigter Akkumulation, sondern ziehen großen Teil des bestäg neugebildeten und nach neuer Anlage drängenden gesellschaftlichen Zusatzkapitals in die begünstigte Produktionssphäre. Die besondern Vorteil der ersten Sturm- und Drangperiode wiederholen sich beständig den Produktionszweigen, worin die Maschinerie neu eingeführt wird. Sobald aber das Fabrikwesen eine gewisse Breite des Daseins und bestimmten Reifegrad gewonnen hat, sobald namentlich seine eigne technische Grundlage, die Maschinerie, selbst wieder durch Maschinen produziert wird, sobald Kohlen- und Eisengewinnung wie die Verarbeitung der Metalle und

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eral conditions requisite for production by the modern industrial system have been established, this mode of production acquires an elasticity, a capacity for sudden extension by leaps and bounds that finds no hindrance except in the supply of raw material and in the disposal of the produce. On the one hand, the immediate effect of machinery is to increase the supply of raw material in the same way, for example, as the cotton gin augmented the production of cotton.²³¹ On the other hand, the cheapness of the articles produced by machinery, and the improved means of transport and communication furnish the weapons for conquering foreign markets. By ruining handicraft production in other countries, machinery forcibly converts them into fields for the supply of its raw material. In this way East India was compelled to produce cotton, wool, hemp, jute, and indigo for Great Britain.²³² By constantly making a part of the hands "superfluous," modern industry, in all countries where it has taken root, gives a spur to emigration and to the colonization of foreign lands, which are thereby converted into settlements for growing the raw material of the mother country; just as Australia, for example, was converted into a colony for growing wool.²³³ A new and international division of labor, a division suited to the requirements of the chief centres of modern industry springs up, and converts one part of the globe into a chiefly agricultural field of production, for supplying the other part which remains a chiefly industrial field. This revolution hangs together with radical changes in agriculture which we need not here further inquire into.²³⁴

²³¹ Other ways in which machinery affects the production of raw material will be mentioned in the third book.

²³⁴ The economic development of the United States is itself a product of European, more especially of English modern industry. In their present form (1866) the States must still be considered a European colony. [*Added in the 4th*

das Transportwesen revolutioniert, überhaupt die der großen Industrie entsprechenden allgemeinen Produktionsbedingungen hergestellt sind, erwirbt diese Betriebsweise eine Elastizität, eine plötzliche sprungweise Ausdehnungsfähigkeit, die nur an dem Rohmaterial und dem Absatzmarkt Schranken findet. Die Maschinerie bewirkt einerseits direkte Vermehrung des Rohmaterials, wie z.B. der cotton gin die Baumwollproduktion vermehrte.²³¹ Andererseits sind Wohlfeilheit des Maschinenprodukts und das umgewälzte Transport- und Kommunikationswesen Waffen zur Erobrung fremder Märkte. Durch den Ruin ihres handwerksmäßigen Produkts verwandelt der Maschinenbetrieb sie zwangsweise in Produktionsfelder seines Rohmaterials. So wurde Ostindien zur Produktion von Baumwolle, Wolle, Hanf, Jute, Indigo usw. für Großbritannien gezwungen.²³² Die beständige „Überzähligmachung“ der Arbeiter in den Ländern der großen Industrie befördert treibhausmäßige Auswanderung und Kolonisation fremder Länder, die sich in Pflanzstätten für das Rohmaterial des Mutterlands verwandeln, wie Australien z.B. in eine Pflanzstätte von Wolle.²³³ Es wird eine neue, den Hauptsitzen des Maschinenbetriebs entsprechende internationale Teilung der Arbeit geschaffen, die einen Teil des Erdballs in vorzugsweis agrikoles Produktionsfeld für den andern als vorzugsweis industrielles Produktionsfeld umwandelt. Diese Revolution hängt zusammen mit Umwälzungen in der Agrikultur, die hier noch nicht weiter zu erörtern sind.²³⁴

²³¹ Andre Methoden, wodurch die Maschinerie auf die Produktion des Rohmaterials einwirkt, werden im Dritten Buch erwähnt.

²³⁴ Die ökonomische Entwicklung der Vereinigten Staaten ist selbst ein Produkt der europäischen, näher englischen großen Industrie. In ihrer jetzigen Gestalt (1866) müssen sie stets noch als Kolonialland von Europa betrachtet

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German edition.—“Since then they have developed into country whose industry holds second place in the world, without on that account entirely losing their colonial character.”—F. E.]

EXPORT OF COTTON FROM THE UNITED STATES TO GREAT BRITAIN 1846. -

401,949,393 lbs. 1852. - 765,630,543

lbs. 1859. - 961,707,264 lbs. 1860. -

1,115,890,608 lbs. EXPORT OF CORN,

etc., FROM THE UNITED STATES TO GREAT BRITAIN 1850 1862 Wheat, cwts 16,202,312 41,033,503 Barley, cwts 3,669,653 6,624,800 Oats, cwts 3,174,801 4,496,994 Rye, cwts 388,749 7,108 Flour, cwts 3,819,440 7,207,113 Buckwheat, cwts 1,054 19,571 Maize, cwts 5,473,161 11,694,818 Bere or Bigg (a sort of Barley), cwts 2,039 7,675 Peas, cwts 811,620 1,024,722 Beans, cwts 1,822,972 2,037,137

----- Total exports
35,365,801 74,083,441

455:1 On the motion of Mr. Gladstone, the House of Commons ordered, on the 17th February, 1867, a return of the total quantities of grain, corn, and flour, of all sorts, imported into, and exported from, the United Kingdom, between the years 1831 and 1866. I give below a summary of the result. The flour is given in quarters of corn. (See the Table on p. 42.6.) QUINQUENNIAL PERIODS AND THE YEAR 1866 ANNUAL AVERAGE 1831–1835 1836–1840

werden. {Zur 4. Aufl.—Seitdem haben sie sich zum zweiten Industrieland der Welt entwickelt, ohne darum ihren Kolonialcharakter ganz eingebüßt zu haben.—F. E.}

Baumwollausfuhr der Vereinigten Staaten nach Großbritannien (in Pfd.)

1846	401 949 393	1852	765 630 544
1859	961 707 264	1860	1 115 890 608

Ausfuhr von Korn usw. aus den Vereinigten Staaten nach Großbritannien (1850 und 1862)

Weizen cwts.	1850	16 202 312	1862	41 033 503
Gerste cwts.	1850	3 669 653	1862	6 624 800
Hafer cwts.	1850	3 174 801	1862	4 496 994
Roggen cwts.	1850	388 749	1862	7 108
Weizenmehl cwts.	1850	3 819 440	1862	7 207 113
Buchweizen cwts.	1850	1 054	1862	19 571
Mais cwts.	1850	5 473 161	1862	11 694 818
Bere oder Bigg (bes. Gerstenart) cwts.	1850	2 039	1862	7 675
Erbsen cwts.	1850	811 620	1862	1 024 722
Bohnen cwts.	1850	1 822 972	1862	2 037 137
Gesamteinfuhr cwts.	1850	35 365 801	1862	74 083 441

476:1 Auf Antrieb des Herrn Gladstone verordnete das Haus der Gemeinen am 18. Februar 1867 eine Statistik über sämtliche von 1831–1866 in das Vereinigte Königreich eingeführte und ausgeführte Kornfrucht, Getreide und Mehl aller Art. Ich gebe nachstehend das zusammenfassende Resultat. Das Mehl ist auf Quarters Korn reduziert. (S. Tabelle auf Seite 419.)

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1841–1845	1846–1850	1851–1855	1856–1860	1861–1865	1866	Import	1,096,373
2,389,729	2,843,865	8,776,552	8,345,237	10,913,612	15,009,871	16,457,340	Export
225,263	251,770	139,056	155,461	307,491	341,150	302,754	216,218
Excess of import over export							871,110
							2,137,959
							2,704,809
							8,621,091
							8,037,746
							10,572,462
							14,707,117
							16,241,122
POPULATION							Yearly average in each period
							24,621,107
							25,929,507
							27,262,569
							27,797,598
							27,572,923
							28,391,544
							29,381,460
							29,935,404
Average quantity of corn etc., in qrs., consumed annually per head over and above the home produce consumed							0.036
							0.082
							0.099
							0.310
							0.291
							0.372
							0.501
							0.543

455:2/o The enormous power, inherent in the factory system, of expanding by jumps, and the dependence of that system on the markets of the world, necessarily beget feverish production, followed by over-filling of the markets, whereupon contraction of the markets brings on crippling of production. The life of modern industry becomes a series of periods of moderate activity, prosperity, over-production, crisis and stagnation. The uncertainty and instability to which machinery subjects the employment, and consequently the conditions of existence, of the operatives become normal, owing to these periodic changes of the industrial cycle. Except in the periods of prosperity, there rages between the capitalists the most furious combat for the share of each in the markets. This share is directly proportional to the cheapness of the product. Besides the rivalry that this struggle begets in the application of improved machinery for replacing labor-power, and of new methods of production, there also comes a time in every industrial cycle, when a forcible reduction of wages beneath the value of labor-power, is attempted for the purpose of cheapening commodities.²³⁵

²³⁵ In an appeal made in July, 1866, to the Trade Societies of England, by the shoemakers of Leicester, who had been thrown on the streets

476:2 Die ungeheure, stoßweise Ausdehnbarkeit des Fabrikwesens und seine Abhängigkeit vom Weltmarkt erzeugen notwendig fieberhafte Produktion und darauf folgende Überfüllung der Märkte, mit deren Kontraktion Lähmung eintritt. Das Leben der Industrie verwandelt sich in eine Reihenfolge von Perioden mittlerer Lebendigkeit, Prosperität, Überproduktion, Krise und Stagnation. Die Unsicherheit und Unstetigkeit, denen der Maschinenbetrieb die Beschäftigung und damit die Lebenslage des Arbeiters unterwirft, werden normal mit diesem Periodenwechsel des industriellen Zyklus. Die Zeiten der Prosperität abgerechnet, rast zwischen den Kapitalisten heftigster Kampf um ihren individuellen Raumanteil am Markt. Dieser Anteil steht in direktem Verhältnis zur Wohlfeilheit des Produkts. Außer der hierdurch erzeugten Rivalität im Gebrauch verbesserter, Arbeitskraft ersetzender Maschinerie und neuer Produktionsmethoden tritt jedesmal ein Punkt ein, wo Verwohlfeilerung der Ware durch gewaltsamen Druck des Arbeitslohnes unter den Wert der Arbeitskraft erstrebt wird.²³⁵

²³⁵ In einem Aufruf der von den Schuhfabrikanten zu Leicester durch einen „lock out“ auf Pflaster geworfenen Arbeiter an die „Trade Socie-

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by a lock-out, it is stated: "Twenty years ago the Leicester shoe trade was revolutionised by the introduction of riveting in the place of stitching. At that time good wages could be earned. Great competition was shown between the different firms as to which could turn out the neatest article. Shortly afterwards, however a worse kind of competition sprang up, namely, that of underselling one another in the market. The injurious consequences soon manifested themselves in reductions of wages, and so sweepingly quick was the fall in the price of labor, that many firms now pay only one half of the original wages. And yet, though wages sink lower and lower, profits appear, with each alteration in the scale of wages, to increase." Even bad times are utilised by the manufacturers, for making exceptional profits by excessive lowering of wages, i.e., by a direct robbery of the laborer's means of subsistence. One example (it has reference to the crisis in the Coventry silk weaving): "From information I have received from manufacturers as well as workmen, there seems to be no doubt that wages have been reduced to a greater extent than either the competition of the foreign producers, or other circumstances have rendered necessary ... the majority of weavers are working at a reduction of 30 to 40 per cent. in their wages. A piece of ribbon for making which the weaver got 6s. or 7s. five years back, now only brings them 3s. 3d. or 3s. 6d.; other work is now priced at 2s. and 2s. 3d. which was formerly priced at 4s. and 4s. 3d. The reduction in wage seems to have been carried to a greater extent than is necessary for increasing demand. Indeed, the reduction in the cost of weaving, in the case of many descriptions of ribbons, has not been accompanied by any corresponding reduction in the selling price of the manufactured article." (Mr. F. D. Longe's Report, "Ch. Empl. Comm., V. Rep., 1866," p. 114, 1.)

457:1 A necessary condition, therefore, to the growth of the number of factory hands, is a proportionally much more rapid growth of the amount of capital invested in mills. This growth, however, is conditioned by the ebb and flow of the industrial cycle. It is, besides, constantly interrupted by the technical progress that at one time virtually supplies the place of new workmen, at another,

ties of England", Juli 1866, heißt es u.a.: „Seit etwa 20 Jahren wurde die Schuhmacherei in Leicester umgewälzt durch Einführung des Nietens statt des Nähens. Gute Löhne konnten damals verdient werden. Bald dehnte sich dies neue Geschäft sehr aus. Große Konkurrenz zeigte sich unter den verschiedenen Firmen, welche den geschmackvollsten Artikel liefern könne. Kurz nachher jedoch entsprang eine schlechte Art Konkurrenz, nämlich die, einander im Markt zu unterverkaufen (undersell). Die schädlichen Folgen offenbarten sich bald in Lohnherabsetzung, und so reißend schnell war der Fall im Preise der Arbeit, daß viele Firmen jetzt nur noch die Hälfte des ursprünglichen Lohns zahlen. Und dennoch, obgleich die Löhne tiefer und tiefer sinken, scheinen die Profite mit jeder Änderung des Arbeitstarifs zu wachsen.“—Selbst ungünstige Perioden der Industrie werden von den Fabrikanten benutzt, um durch übertriebene Lohnherabsetzung, d.h. direkten Diebstahl an den notwendigsten Lebensmitteln des Arbeiters, außerordentliche Profite zu machen. Ein Beispiel. Es handelt sich um die Krise in der Seidenweberei zu Coventry: „Aus Nachweisen, die ich sowohl von Fabrikanten als Arbeitern erhielt, folgt zweifelsohne, daß die Löhne in einem größeren Umfang verkürzt wurden, als die Konkurrenz ausländischer Produzenten oder andre Umstände ernötigten. Die Majorität der Weber arbeitet zu einer Lohnherabsetzung von 30 bis 40%. Ein Stück Band, wofür der Weber fünf Jahre früher 6 oder 7 sh. erhielt, bringt ihm jetzt nur 3 sh. 3 d. oder 3 sh. 6 d. ein; andre Arbeit, früher zu 4 sh. und 4 sh. 3 d. bezahlt, erhält jetzt nur 2 sh. oder 2 sh. 3 d. Die Lohnherabsetzung ist größer, als zum Stachel der Nachfrage erheischt ist. In der Tat, bei vielen Arten von Band war die Lohnherabsetzung nicht einmal begleitet von irgendeiner Herabsetzung im Preise des Artikels.“ (Bericht des Kommissärs F. D. Longe in „Ch. Emp. Comm., V. Rep. 1866“, p. 114, n. 1.)

477:1 Wachstum in der Anzahl der Fabrikarbeiter ist also bedingt durch proportionell viel rasches Wachstum des in den Fabriken angelegten Gesamtkapitals. Dieser Prozeß vollzieht sich aber nur innerhalb der Ebb- und Flutperioden des industriellen Zyklus. Er wird zudem stets unterbrochen durch den technischen Fortschritt, der Arbeiter bald virtuell ersetzt, bald faktisch ver-

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actually displaces old ones. This qualitative change in mechanical industry continually discharges hands from the factory, or shuts its doors against the fresh stream of recruits, while the purely quantitative extension of the factories absorbs not only the men thrown out of work, but also fresh contingents. The workpeople are thus continually both repelled and attracted, hustled from pillar to post, while, at the same time, constant changes take place in the sex, age, and skill of the levies.

457:2 The lot of the factory operatives will be best depicted by taking a rapid survey of the course of the English cotton industry.

458:1 From 1770 to 1815 this trade was depressed or stagnant for 5 years only. During this period of 45 years the English manufacturers had a monopoly of machinery and of the markets of the world. From 1815 to 1821 depression; 1822 and 1823 prosperity; 1824 abolition of the laws against Trades' Unions, great extension of factories everywhere; 1825 crisis; 1826 great misery and riots among the factory operatives; 1827 slight improvement; 1828 great increase in power-looms, and in exports; 1829 exports, especially to India, surpass all former years; 1830 glutted markets, great distress; 1831 to 1833 continued depression, the monopoly of the trade with India and China withdrawn from the, East India Company; 1834 great increase of factories and machinery, shortness of hands. The new poor law furthers the migration of agricultural laborers into the factory districts. The country districts swept of children. White slave trade; 1835 great prosperity, contemporaneous starvation of the hand-loom weavers; 1836 great prosperity; 1837 and 1838 depression and crisis; 1839 revival; 1840 great depression, riots, calling out of the military; 1841 and 1842 frightful suffering among the factory operatives; 1842 the manufacturers lock the hands out of the factories in order to enforce the repeal of the Corn Laws. The opera-

drängt. Dieser qualitative im Maschinenbetrieb entfernt beständig Arbeiter aus der Fabrik oder verschließt ihr Tor dem neuen Rekrutenstrom, während die bloß quantitative Ausdehnung der Fabriken neben den Herausgeworfnen frische Kontingente verschlingt. Die Arbeiter werden so fortwährend repelliert und attrahiert, hin- und hergeschleudert, und dies bei beständigem Wechsel in Geschlecht, Alter und Geschick der Angeworbnen.

477:2 Die Schicksale des Fabrikarbeiters werden am besten veranschaulicht durch raschen Überblick der Schicksale der englischen Baumwollindustrie.

477:3/o Von 1770 bis 1815 Baumwollindustrie gedrückt oder stagnant 5 Jahre. Während dieser ersten 45jährigen Periode besaßen die englischen Fabrikanten das Monopol der Maschinerie und des Weltmarkts. 1815 bis 1821 gedrückt, 1822 und 1823 prosperierend, 1824 Aufhebung der Kolalitions-gesetze, allgemeine große Ausdehnung der Fabriken, 1825 Krise; 1826 großes Elend und Aufstände unter den Baumwollarbeitern; 1827 leise Beßrung, 1828 großer Anwachs von Dampfwebstühlen und Ausfuhr; 1829 übergipfelt die Ausfuhr, besonders nach Indien, alle frühen Jahre; 1830 überfüllte Märkte, großer Notstand, 1831 bis 1833 fortdauernder Druck; der Handel nach Ostasien (Indien und China) wird dem Monopol der Ostindischen Kompanie entzogen. 1834 großes Wachstum von Fabriken und Maschinerie, Mangel an Händen. Das neue Armengesetz befördert die Wandrung der Landarbeiter in die Fabrikdistrikte. Fegung der ländlichen Graf-schaften von Kindern. Weißer Sklavenhandel. 1835 große Prosperität. Gleichzeitige Tothungrung der Baumwollhand-weber, 1836 große Prosperität. 1837 und 1838 gedrückter Zustand und Krise. 1839 Wiederaufleben. 1840 große Depression, Aufstände, Einschreiten des Militärs. 1841 und 1842 furchtbares Leiden der Fabrikar-

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tives stream in thousands into the towns of Lancashire and Yorkshire, are driven back by the military, and their leaders brought to trial at Lancaster; 1843 great misery; 1844 revival; 1845 great prosperity; 1846 continued improvement at first, then reaction. Repeal of the Corn Laws; 1847 crisis, general reduction of wages by 10 and more per cent. in honour of the "big loaf"; 1848 continued depression; Manchester under military protection; 1849 revival; 1850 prosperity; 1851 falling prices, low wages, frequent strikes; 1852 improvement begins, strikes continue, the manufacturers threaten to import foreign hands; 1853 increasing exports. Strike for 8 months, and great misery at Preston; 1854 prosperity, glutted markets; 1855 news of failures stream in from the United States, Canada, and the Eastern markets; 1856 great prosperity; 1857 crisis; 1858 improvement; 1859 great prosperity, increase in factories; 1860 Zenith of the English cotton trade, the Indian, Australian, and other markets so glutted with goods that even in 1863 they had not absorbed the whole lot; the French Treaty of Commerce, enormous growth of factories and machinery; 1861 prosperity continues for a time, reaction, the American Civil War, cotton famine: 1862 to 1863 complete collapse.

beiter. 1842 schließen die Fabrikanten die Hände von den Fabriken aus, um den Widerruf der Korngesetze zu erzwingen. Die Arbeiter strömen zu vielen Tausenden nach Yorkshire, vom Militär zurückgetrieben, ihre Führer vor Gericht zu Lancaster gestellt. 1843 großes Elend. 1844 Wiederaufleben. 1845 große Prosperität. 1846 erst fortdauernder Aufschwung, dann Symptome der Reaktion. Widerruf der Korngesetze. 1847 Krise. Allgemeine Herabsetzung der Löhne um 10 und mehr Prozent zur Feier des „big loaf“. 1848 fortdauernder Druck. Manchester unter militärischem Schutz. 1849 Wiederaufleben. 1850 Prosperität. 1851 fallende Warenpreise, niedrige Löhne, häufige strikes. 1852 beginnende Verbeßrung. Fortdauer der strikes, Fabrikanten drohn mit Import fremder Arbeiter. 1853 steigende Ausfuhr. Achtmonatlicher strike und großes Elend zu Preston. 1854 Prosperität, Überfüllung der Märkte. 1855 Berichte von Bankerotten strömen ein aus den Vereinigten Staaten, Kanada, ostasiatischen Märkten. 1856 große Prosperität. 1857 Krise. 1858 Verbeßrung. 1859 große Prosperität, Zunahme der Fabriken. 1860 Zenit der englischen Baumwollindustrie. Indische, australische und andre Märkte so überführt, daß sie noch 1863 kaum den ganzen Quark absorbiert haben. Französischer Handelsvertrag. Enormes Wachstum von Fabriken und Maschinerie. 1861 Aufschwung dauert Zeitlang fort, Reaktion, Amerikanischer Bürgerkrieg, Baumwollnot. 1862 bis 1863 vollständiger Zusammenbruch.

Page 456 is the big table.

458:1–460:1 The history of the cotton famine is too characteristic to dispense with dwelling upon it for a moment. From the indications as to the condition of the markets of the world in 1860 and 1861, we see that the cotton famine came in the nick of time for the manufacturers, and was to some extent advantageous to them, a fact that was acknowledged in the reports of the Manchester Chamber of Commerce, proclaimed in

478:1–481:1 Die Geschichte der Baumwollnot ist zu charakteristisch, um nicht einen Augenblick dabei zu verweilen. Aus den Andeutungen der Zustände des Weltmarkts 1860 bis 1861 ersieht man, daß die Baumwollnot den Fabrikanten gelegen kam und zum Teil vorteilhaft war, eine Tatsache, anerkannt in Berichten der Manchester Handelskammer, im Parlament proklamiert von Palmerston und Derby, durch die Ereignisse

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	Fünfjährige Perioden und Jahr 1866						
	1831–1835	1836–1840	1841–1845	1846–1850	1851–1855	1856–1860	1861–1865
Jährlicher Durchschnitt.							
Import Qrs.	1 096 373	2 389 729	2 843 865	8 776 552	8 345 237	10 913 612	15 009 871
Jahresdurchschnitt							
Export Qrs.	225 263	251 770	139 056	155 461	307 491	341 150	302 754
Überschuß von Import über Export der Durch- schnittsjahre	871 110	2 137 959	2 704 809	8 621 091	8 037 746	10 572 462	14 707 117
Population.							
Jährliche Durchschnitts- zahl in jeder Periode	24 621 107	25 929 507	27 262 569	27 797 598	27 572 923	28 391 544	29 381 760
Durchschnittsquantum von Korn etc. in Qrs., jährlich verzehrt per Individuum, bei gleicher Teilung unter die Be- völkerung, im Überschuß über die heimische Pro- duktion	0,036	0,082	0,099	0,310	0,291	0,372	0,501

Parliament by Palmerston and Derby, and confirmed by events.²³⁶ No doubt, among the 2,887 cotton mills in the United Kingdom in 1861, there were many of small size. According to the report of Mr. A. Redgrave, out of the 2,109 mills included in his district, 392, or 19% employed less than ten horse-power each; 345, or 16% employed 10 H. P., and less than 20 H. P.; while 1,372 employed upwards of 20 H. P.²³⁷ The majority of the small mills were weaving sheds, built during the period of prosperity after 1858, for the most part by speculators, of whom one supplied the yam, another the machinery, a third the buildings, and were worked by men who had been overlookers, or by other persons of small means. These small manufacturers mostly went to the wall. The same fate would have overtaken them in the commercial crisis that was staved off only by the cotton famine. Although they formed one-third of the total number of manufacturers, yet their mills absorbed a much smaller part of the capital invested in the cotton trade. As to the ex-

bestätigt.²³⁶ Allerdings gab es 1861 unter den 2887 Baumwollfabriken des Vereinigten Köreichs viel kleine. Nach dem Bericht des Fabrikinspektors A. Redgrave, dessen Verwaltungsbezirk von jenen 2887 Fabriken 2109 einschließt, wendeten von letzteren 392 oder 19% nur unter 10 Dampf-Pferdekraft an, 345 oder 16% 10 und unter 20, 1372 dagegen 20 und mehr Pferdekraft.²³⁷ Die Mehrzahl der kleinen Fabriken waren Webereien, während der Prosperitätsperiode seit 1858 errichtet, meist durch Spekulant,en, wovon der eine das Garn, der andere die Maschinerie, der dritte die Baulichkeit lieferte, unter dem Betrieb ehemaliger overlookers oder anderer unbemittelter Leute. Diese kleinen Fabrikanten gingen meist unter. Dasselbe Schicksal hätte ihnen die durch das Baumwollpech verhinderte Handelskrise bereitet. Obgleich sie 1/3 der Fabrikantenzahl bildeten, absorbierten ihre Fabriken einen ungleich geringeren Teil des in der Baumwollindustrie angelegten Kapitals. Was den Umfang der Lähmung betrifft, so standen nach den authentischen Schätzun-

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tent of the stoppage, it appears from authentic estimates, that in October 1862, 60.3% of the spindles, and 58% of the looms were standing. This refers to the cotton trade as a whole, and, of course, requires considerable modification for individual districts. Only very few mills worked full time (60 hours a week), the remainder worked at intervals. Even in those few cases where full time was worked, and at the customary rate of piece-wage, the weekly wages of the operatives necessarily shrank, owing to good cotton being replaced by bad, Sea Island by Egyptian (in fine spinning mills), American and Egyptian by Surat, and pure cotton by mixings of waste and Surat. The shorter fibre of the Surat cotton and its dirty condition, the greater fragility of the thread, the substitution of all sorts of heavy ingredients for flour in sizing the warps, all these lessened the speed of the machinery, or the number of the looms that could be superintended by one weaver, increased the labor caused by defects in the machinery, and reduced the piece-wage by reducing the mass of the product turned off. Where Surat cotton was used, the loss to the operatives when on full time, amounted to 20, 30, and more per cent. But besides this, the majority of the manufacturers reduced the rate of piece-wage by 5, 7 1/2, and 10 per cent. We can therefore conceive the situation of those hands who were employed for only 3, 3 1/2 or 4 days a week, or for only 6 hours a day. Even in 1863, after a comparative improvement had set in, the weekly wages of spinners and of weavers were 3s. 4d., 3s. 10d., 4s. 6d. and 5s. 1d.²³⁸ Even in this miserable state of things, however, the inventive spirit of the master never stood still, but was exercised in making deductions from wages. These were to some extent inflicted as a penalty for defects in the finished article that were really due to his bad cotton and to his unsuitable machinery. Moreover, where the manufacturer owned the cottages of the workpeople, he paid himself his rents by deducting the amount from these miserable Wages. Mr.

gen im Oktober 1862 60,3% der Spindeln und 58% der Webstühle still. Dies bezieht sich auf den ganzen Industriezweig und war natürlich sehr modifiziert in den einzelnen Distrikten. Nur sehr wenige Fabriken arbeiteten volle Zeit (60 Stunden per Woche), die übrigen mit Unterbrechungen. Selbst für die wenigen Arbeiter, die volle Zeit und zu dem gewohnten Stücklohn beschäftigt, schmälerte sich notwendig der Wochenlohn infolge der Ersetzung besser Baumwolle durch schlechte, der Sea Island durch ägyptische (in Feinspinnereien), amerikanischer und ägyptischer durch Surat (ostindisch) und reiner Baumwolle durch Mischungen von Baumwollabfall mit Surat. Die kürzere Fiber der Suratbaumwolle, ihre schmutzige Beschaffenheit, die größere Brüchigkeit der Fäden, der Ersatz des Mehls durch alle Art schwerer Ingredienzien beim Schlichten des Kettengarns usw. verminderten die Geschwindigkeit der Maschinerie oder die Zahl der Webstühle, die ein Weber überwachen konnte, vermehrten die Arbeit mit den Irrtümern der Maschine und beschränkten mit der Produktenmasse den Stücklohn. Beim Gebrauch von Surat und mit voller Beschäftigung belief sich der Verlust des Arbeiters auf 20, 30 und mehr Prozent. Die Mehrzahl der Fabrikanten setzte aber auch die Rate des Stücklohns um 5, 7 1/2 und 10 Prozent herab. Man begreift daher die Lage der nur 3, 3 1/2, 4 Tage wöchentlich oder nur 6 Stunden per Tag Beschäftigten. Nachdem schon eine relative Verbeßrung eingetreten war, 1863, für Weber, Spinner usw. Wochenlöhne von 3 sh. 4 d., 3 sh. 10 d., 4 sh. 6 d., 5 sh. 1 d. usw.²³⁸ Selbst unter diesen qualvollen Zuständen stand der Erfindungsgeist des Fabrikanten in Lohnabzügen nicht still. Diese wurden zum Teil verhängt als Strafe für einer schlechten Baumwolle, unpassenden Maschinerie usw. geschuldeten Fehler des Machwerks. Wo der Fabrikant aber Eigentümer der cottages der Arbeiter, vergütete er sich selbst für Hausrente durch Abzüge vom nominellen Arbeitslohn. Fabrikinspektor Redgrave erzählt von selfac-

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Redgrave tells us of self-acting minders (operatives who manage a pair of self-acting mules)

“earning at the end of a fortnight’s full work 8s. 11d., and that from this sum was deducted the rent of the house, the manufacturer, however, returning half the rent as a gift. The minders took away the sum of 6s. 11d. In many places the self-acting minders ranged from 5s. to 9s. per week, and the weavers from 2s. to 6s. per week, during the latter part of 1862.”²³⁹

²³⁶ Conf “Reports of Insp. of Fact., 31st October, 1862,” p. 30.

²³⁷ l.c., p. 19.

²³⁸ “Rep. Insp. of Fact., 31st October, 1863,” pp. 41–45.

²³⁹ l.c., pp. 41–42

Even when working short time the rent was frequently deducted from the wages of the operatives.²⁴⁰ No wonder that in some parts of Lancashire a kind of famine fever broke out. But more characteristic than all this, was, the revolution that took place in the process of production at the expense of the workpeople. Experimenta in corpore vili, like those of anatomists on frogs, were formally made.

“Although,” says Mr. Redgrave, “I have given the actual earnings of the operatives in the several mills, it does not follow that they earn the same amount week by week. The operatives are subject to great fluctuation from the constant experimentalising of the manufacturers ... the earnings of the operatives rise and fall with the quality of the cotton mixings; sometimes they have been within 15 per cent. of former earnings, and then, in a week or two, they have fallen off from 50 to 60 per cent.”²⁴¹

²⁴⁰ l.c., p. 57.

²⁴¹ l.c., pp. 50–51.

These experiments were not made solely at the expense of the workman’s means of subsistence. His five senses also had to pay the penalty.

“The people who are employed in making up Surat cotton complain very much. They inform me, on opening the bales of cotton there

ting minders (sie überwachen ein Paar self-acting mules), die

„am Ende vierzehntägiger voller Arbeit 8 sh. 11 d. verdienten, und von dieser Summe wurde die Hausrente abgezogen, wovon der Fabrikant jedoch die Hälfte als Geschenk zurückgab, so daß die minders volle 6 sh. 11 d. nach Hause trugen. Der Wochenlohn der Weber rangierte von 2 sh. 6 d. aufwärts während der Schlußzeit von 1862.“²³⁹

²³⁶ Vgl. „Reports of Insp. of Fact. for 31st Oct. 1862“, p. 30.

²³⁷ l.c. p. 18, 19.

²³⁸ „Reports of Fact. for 31st. Oct. 1863“, p. 41–45, 51.

²³⁹ „Reports etc. 31st Oct. 1863“, p. 41, 42.

481:2–3 Selbst dann wurde die Hausmiete von den Löhnen häufig abgezogen, wenn die Hände nur kurze Zeit arbeiteten.²⁴⁰ Kein Wunder, daß in einigen Teilen Lancashires eine Art Hungerpest ausbrach! Charakteristischer als alles dies aber war es, wie die Revolutionierung des Produktionsprozesses auf Kosten des Arbeiters vor sich ging. Es waren förmliche experimenta in corpore vili, wie die der Anatomen an Fröschen.

„Obgleich ich“, sagt Fabrikinspektor Redgrave, „die wirklichen Einnahmen der Arbeiter in vielen Fabriken gegeben habe, muß man nicht schließen, daß sie denselben Betrag Woche für Woche beziehn. Die Arbeiter erliegen den größten Schwankungen wegen des beständigen Experimentierens (experimentalizing) der Fabrikanten ... ihre Einkünfte steigen und fallen mit der Qualität des Baumwollgemischs; bald nähern sie sich um 15% ihren früheren Einnahmen, und die nächste oder zweitfolgende Woche fallen sie um 50 bis 60%.“²⁴¹

²⁴⁰ l.c. p. 57.

²⁴¹ l.c. p. 50, 51.

481:4–5 Diese Experimente wurden nicht nur auf Kosten der Lebensmittel der Arbeiter gemacht. Mit allen ihren fünf Sinnen hatten sie zu büßen.

„Die im Öffnen der Baumwolle Beschäftigten unterrichten mich, daß der unerträgliche Gestank sie übel macht ... Den in den Misch-

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is an intolerable smell, which causes sickness ... In the mixing, scribbling and carding rooms, the dust and dirt which are disengaged, irritate the air passages, and give rise to cough and difficulty of breathing. A disease of the skin, no doubt from the irritation of the dirt contained in the Surat cotton, also prevails ... The fibre being so short, a great amount of size, both animal and vegetable, is used ... Bronchitis is more prevalent owing to the dust. Inflammatory sore throat is common, from the same cause. Sickness and dyspepsia are produced by the frequent breaking of the weft, when the weaver sucks the weft through the eye of the shuttle.”

On the other hand, the substitutes for flour were a Fortunatus’ purse to the manufacturers, by increasing the weight of the yarn. They caused “15 lbs. of raw material to weigh 26 lbs. after it was woven.”²⁴² In the Report of Inspectors of Factories for 30th April, 1864, we read as follows:

“The trade is availing itself of this resource at present to an extent which is even discreditable. I have heard on good authority of a cloth weighing 8 lbs. which was made of 5 1/4 lbs. cotton and 2 3/4 lbs. size; and of another cloth weighing 5 1/4 lbs., of which 2 lbs. was size. These were ordinary export shirtings. In cloths of other descriptions, as much as 50 per cent. size is sometimes added; so that a manufacturer may, and does truly boast, that he is getting rich by selling cloth for less money per pound than he paid for the mere yarn of which they are composed.”²⁴³

²⁴² l.c., pp. 62–63.

²⁴³ “Rep. etc., 30th April, 1864,” p. 27.

But the workpeople had to suffer, not only from the experiments of the manufacturers inside the mills, and of the municipalities outside, not only from reduced wages and absence of work, from want and from charity, and from the eulogistic speeches of lords and commons.

“Unfortunate females who, in consequence of the cotton famine, were at its commencement thrown out of employment, and have thereby become outcasts of society; and now, though

Scribbling- und Kardierräumen Angewandten irritiert der freigesetzte Staub und Schmutz alle Kopfoffnungen, erregt Husten und Schwierigkeit des Atmens ... Wegen der Kürze der Fiber wird dem Garn beim Schlichten eine große Menge Stoff zugesetzt, und zwar allerlei Substitute statt des früher gebrauchten Mehls. Daher Übelkeit und Dyspepsie der Weber. Bronchitis herrscht vor wegen des Staubs, ebenso Halsentzündung, ferner eine Hautkrankheit infolge der Irritation der Haut durch den im Surat enthaltenen Schmutz.“

482:1–2 Andererseits waren die Substitute des Mehls ein Fortunatussäckel für die Herrn Fabrikanten durch Vermehrung des Garngewichts. Sie machten „15 Pfund Rohmaterial, wenn verwebt, 20 Pfund wiegen“.²⁴² In dem Bericht der Fabrikinspektoren vom 30. April 1864 liest man:

„Die Industrie verwertet diese Hilfsquelle jetzt in wahrhaft unanständigem Maß. Ich weiß von guter Autorität, daß achtpfüßiges Geweb von 5 1/4 Pfund Baumwolle und 2 3/4 Pfund Schlichte gemacht wird. Ein andres 5 1/4 pfündiges Geweb enthielt zwei Pfund Schlichte. Dies waren ordinäre Shirtings für den Export. In andren Arten wurden manchmal 50% Schlichte zugesetzt, so daß Fabrikanten sich rühmen können und sich auch wirklich rühmen, daß sie reich werden durch den Verkauf von Geweben für weniger Geld, als das nominell in ihnen enthaltne Garn kostet.“²⁴³

²⁴² l.c. p. 62, 63.

²⁴³ „Reports etc. 30th April 1864“, p. 27.

482:3–4 Die Arbeiter aber hatten nicht nur unter den Experimenten der Fabrikanten in den Fabriken, und der Munizipalitäten außerhalb der Fabriken, nicht nur von Lohnherabsetzung und Arbeitslosigkeit, von Mangel und Almosen, von den Lobreden der Lords und Unterhändler zu leiden.

„Unglückliche Frauenzimmer, beschäftigungslos infolge der Baumwollnot, wurden Auswürflinge der Gesellschaft und blieben es ... Die Zahl junger Prostituierten hat mehr zugenom-

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trade has revived, and work is plentiful, continue members of that unfortunate class, and are likely to continue so. There are also in the borough more youthful prostitutes than I have known for the last 25 years.”²⁴⁴

²⁴⁴ From a letter of Mr. Harris, Chief Constable of Bolton, in “Rep. of Insp. of Fact., 31st October, 1865,” pp. 61–62.

461:6/o We find then, in the first 45 years of the English cotton trade, from 1770 to 1815, only 5 years of crisis and stagnation; but this was the period of monopoly. The second period from 1815 to 1863 counts, during its 48 years, only 20 years of revival and prosperity against 28 of depression and stagnation. Between 1815 and 1830 the competition with the continent of Europe and with the United States sets in. After 1833, the extension of the Asiatic markets is enforced by “destruction of the human race” (the wholesale extinction of Indian hand-loom weavers). After the repeal of the Corn Laws, from 1846 to 1863, there are 8 years of moderate activity and prosperity against 9 years of depression and stagnation. The condition of the adult male operatives, even during the years of prosperity, may be judged from the note subjoined.²⁴⁵

²⁴⁵ In an appeal, dated 1863, of the factory operatives of Lancashire, etc., for the purpose of forming a society for organised emigration, we find the following: “That a large emigration of factory workers is now absolutely essential to raise them from their present prostrate condition, few will deny; but to show that a continuous stream of emigration is at all times demanded, and, without which it is impossible for them to maintain their position in ordinary times, we beg to call attention to the subjoined facts:—In 1814 the official value of cotton goods exported was £17,665,378, whilst the real marketable value was £20,070,824. In 1858 the official value of cotton goods exported, was £182,221,681; but the real or marketable value was only £43,001,322, being a ten-fold quantity sold for little more than double the former price. To produce results so disadvantageous to the country generally, and to the factory workers in particular, several causes have co-operated,

men als seit den letzten 25 Jahren.“²⁴⁴

²⁴⁴ Aus Brief des Chief Constable Harris von Bolton in „Reports of Insp. of Fact., 31st Oct. 1865“, p. 61, 62.

482:5 Man findet also in den ersten 45 Jahren der britischen Baumwollindustrie, von 1770–1815, nur 5 Jahre der Krise und Stagnation, aber dies war die Periode ihres Weltmonopols. Die zweite, 48jährige Periode von 1815 bis 1863 zählt nur 20 Jahre des Wiederauflebens und der Prosperität auf 28 Jahre des Drucks und der Stagnation. Von 1815–1830 beginnt die Konkurrenz mit dem kontinentalen Europa und den Vereinigten Staaten. Seit 1833 wird Ausdehnung der asiatischen Märkte erzwungen durch „Zerstörung der Menschenrace“. Seit Widerruf der Korngesetze, von 1846 bis 1863, auf acht Jahre mittlerer Lebendigkeit und Prosperität 9 Jahre Druck und Stagnation. Die Lage der erwachsenen männlichen Baumwollarbeiter, selbst während der Prosperitätszeit, zu beurteilen aus der beigefügten Note.²⁴⁵

²⁴⁵ In einem Aufruf der Baumwollarbeiter, Frühling 1863, zur Bildung einer Emigrationsgesellschaft heißt es u.a.: „Daß eine große Emigration von Fabrikarbeitern jetzt absolut notwendig ist, werden nur wenige leugnen. Daß aber ein beständiger Emigrationsstrom zu allen Zeiten erheischt und es ohne denselben unmöglich ist, unsre Stellung unter gewöhnlichen Umständen, zeigen folgende Tatsachen: Im Jahr 1814 betrug der offizielle Wert (der nur Index der Quantität) der exportierten Baumwollgüter 17 665 378 Pfd. St., ihr wirklicher Marktwert 20 070 824 Pfd. St. Im Jahr 1858 betrug der offizielle Wert der exportierten Baumwollgüter 182 221 681 Pfd. St., ihr wirklicher Marktwert nur 43 001 322 Pfd. St., so daß Verzehnfachung der Quantität mehr als Verdopplung des Äquivalents bewirkte. Dies für das Land überhaupt und die Fabrikarbeiter im besondern so unheilvolle Resultat ward durch verschiedene zusammenwirkende Ursachen hervorgerufen. Eine der hervorstechendsten ist der

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which, had circumstances permitted, we should have brought more prominently under your notice; suffice it for the present to say that the most obvious one is the constant redundancy of labor, without which a trade so ruinous in its effects never could have been carried on, and which requires a constantly extending market to save it from annihilation. Our cotton mills may be brought to a stand by the periodical stagnations of trade, which, under present arrangements, are as inevitable as death itself; but the human mind is constantly at work, and although we believe we are under the mark in stating that six millions of persons have left these shores during the last 25 years, yet, from the natural increase of population, and the displacement of labor to cheapen production, a large percentage of the male adults in the most prosperous times find it impossible to obtain work in factories on any conditions whatever." ("Reports of Insp. of Fact., 30th April 1863," pp. 51–52.) We shall, in a later chapter, see how our friends, the manufacturers, endeavoured, during the catastrophe in the cotton trade, to prevent by every means, including State interference, the emigration of the operatives.

beständige Überfluß von Arbeit, unentbehrlich für diesen Geschäftszweig, der, unter Strafe der Vernichtung, beständiger Expansion des Markts bedarf. Unsre Baumwollfabriken können stillgesetzt werden durch die periodische Stagnation des Handels, welche, unter gegenwärtiger Einrichtung, so unvermeidlich ist, wie der Tod selbst. Aber deswegen steht der menschliche Erfindungsgeist nicht still. Obgleich, niedrig angeschlagen, 6 Millionen dies Land während der letzten 25 Jahre verlassen haben, befindet sich dennoch infolge fortwährender Verdrängung der Arbeit, um das Produkt zu verwohlfeilern, ein großer Prozentsatz der erwachsenen Männer selbst in den Zeiten höchster Prosperität außerstand, Beschäftigung irgendeiner Art auf irgendwelche Bedingungen in den Fabriken zu finden." („Reports of Insp. of Fact., 30th April 1863“, p. 51, 52.) Man wird in einem spätern Kapitel sehn, wie die Herrn Fabrikanten während der Baumwollkatastrophe die Emigration der Fabrikarbeiter auf alle Art, selbst von Staats wegen, zu verhindern suchten.

15.8.

The Revolutionary Impact of Large-Scale Industry on Manufacture, Handicrafts and Domestic Industry

15.8.a. Supersession of Co-operation Based on Handicraft and Division of Labor

462:1/oo We have seen how machinery does away with co-operation based on handicrafts, and with manufacture based on the division of handicraft labor. An example of the first sort is the mowing-machine; it replaces co-operation between mowers. A striking example of the second kind, is the needle-making machine. According to Adam Smith, 10 men, in his day, made in co-operation, over 48,000 needles a-day. On the other hand, a single needle-machine makes 145,000 in a working-day of 11 hours. One woman or one girl superintends four such machines, and so produces near upon 600,000 needles in a day, and upwards

483:1/oo Man hat gesehen, wie die Maschinerie die auf dem Handwerk beruhende Kooperation und die auf Teilung der handwerksmäßigen Arbeit beruhende Manufaktur aufhebt. Ein Beispiel der ersten Art ist die Mähmaschine, sie ersetzt die Kooperation von Mähern. Ein schlagendes Beispiel der zweiten Art ist die Maschine zur Fabrikation von Nähnadeln. Nach Adam Smith verfertigten zu seiner Zeit 10 Männer durch Teilung der Arbeit täglich über 48 000 Nähnadeln. Eine einzige Maschine liefert dagegen 145 000 in einem Arbeitstag von 11 Stunden. Eine Frau oder ein Mädchen überwacht im Durchschnitt 4 solche Ma-

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of 3,000,000 in a week.²⁴⁶

²⁴⁶ “Ch. Empl. Comm. III. Report, 1864,” p. 108, n. 447.

schinen und produziert daher mit der Maschinerie täglich an 600 000, in der Woche über 3 000 000 Nähadeln.²⁴⁶

²⁴⁶ „Ch. Empl. Comm., III. Report“, 1864, p. 108, n. 447.

↑ Machinery does away with (aufhebt) “co-operation based on handicrafts, and with manufacture based on the division of handicraft labor.” ↓ What does it put in its place? Marx is going to show that ultimately they will be replaced by the *factory system*. (“Factory system” and “machinery” as not synonyma! One is relations (mode) of production, the other productive forces.) Why the factory system? Marx does not lay it out explicitly on this point, but will make mention of it again one page later at the beginning of subsection 2: Machinery causes an objective analysis of the production process which does not stop at the limit of an individual laborer.

↓ First step in this development: sometimes, industry of a handicraft character can develop around a single machine. But this can only be a transitional stage to the modern factory system. Usually, factory production sets in at the moment when the machinery calls for steam engines.

A single machine, when it takes the place of co-operation or of manufacture, may itself serve as the basis of an industry of a handicraft character. Still, such a return to handicrafts is but a transition to the factory system, which, as a rule, makes its appearance so soon as the human muscles are replaced, for the purpose of driving the machines, by a mechanical motive power, such as steam or water.

Sofern eine einzelne Arbeitsmaschine an die Stelle der Kooperation oder der Manufaktur tritt, kann sie selbst wieder zur Grundlage handwerksmäßigen Betriebs werden. Indes bildet diese auf Maschinerie beruhende Reproduktion des Handwerkbetriebs nur den Übergang zum Fabrikbetrieb, der in der Regel jedesmal eintritt, sobald mechanische Triebkraft, Dampf oder Wasser, die menschlichen Muskeln in der Bewegung der Maschine ersetzt.

Sometimes the onset of the factory system can be delayed, but over time it is inevitable. The failure of the “experiment” of “Cottage factories” (which were not really factories!) shows the inevitability of the factory system.

Here and there, but in any case only for a time, an industry may be carried on, on a small scale, by means of mechanical power. This is effected by hiring steam-power, as is done in some of the Birmingham trades, or by the use of small caloric-engines, as in some branches of weaving.²⁴⁷ In the Coventry silk weaving industry the experiment of “cottage factories” was tried. In the centre of a square surrounded by rows of cottages, an engine-house was built and the engine connected by shafts with the looms in the cottages. In all cases the power was hired at so much per loom. The rent was payable weekly, whether the looms worked or not. Each cottage held from 2 to 6 looms; some

Sporadisch und ebenfalls nur vorübergehend kann kleiner Betrieb sich verbinden mit mechanischer Triebkraft durch Miete des Dampfs, wie in einigen Manufakturen Birminghams, durch Gebrauch kleiner kalorischer Maschinen, wie in gewissen Zweigen der Weberei usw.²⁴⁷ In der Seidenweberei zu Coventry entwickelte sich naturwüchsig das Experiment der „Cottage-Fabriken“. In der Mitte von Cottage-Reihen, quadratmäßig gebaut, wurde ein sog. Engine House errichtet für die Dampfmaschine und dies durch Schäfte mit den Webstühlen in den cottages verbunden. In allen Fällen war der Dampf gemietet, z.B. zu 2 1/2 sh. per Webstuhl. Diese Dampfren-

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belonged to the weaver, some were bought on credit, some were hired. The struggle between these cottage factories and the factory proper, lasted over 12 years. It ended with the complete ruin of the 300 cottage factories.²⁴⁸

²⁴⁷ In the United States the restoration, in this way, of handicrafts based on machinery is frequent; and therefore, when the inevitable transition to the factory system shall take place, the ensuing concentration will, compared with Europe and even with England, stride on in seven-league boots.

²⁴⁸ See "Rep. of Insp. of Fact., 31st Oct., 1865," p. 64.

In situations where the factory system is not necessary from the beginning because of the scale of the process, handicrafts and manufacturing with division of labor are only transitional stages.

Wherever the nature of the process did not involve production on a large scale, the new industries that have sprung up in the last few decades, such as envelope making, steel-pen making, etc., have, as a general rule, first passed through the handicraft stage, and then the manufacturing stage, as short phases of transition to the factory stage.

Even in situations where such a transition seems very difficult, the transition nevertheless happens.

The transition is very difficult in those cases where the production of the article by manufacture consists, not of a series of graduated processes, but of a great number of disconnected ones. This circumstance formed a great hindrance to the establishment of steel-pen factories. Nevertheless, about 15 years ago, a machine was invented that automatically performed 6 separate operations at once. The first steel-pens were supplied by the handicraft system, in the year 1820, at £7 4s. the gross; in 1830 they were supplied by manufacture at 8s., and today the factory system supplies them to the trade at from 2s. to 6d. the gross.²⁴⁹

²⁴⁹ Mr. Gillott erected in Birmingham the first steel-pen factory on a large scale. It produced, so early as 1851, over 180,000,000 of pens yearly,

te war wöchentlich zahlbar, die Webstühle mochten laufen oder nicht. Jede cottage enthielt 2–6 Webstühle, den Arbeitern gehörig, oder auf Kredit gekauft, oder gemietet. Der Kampf zwischen der Cottage-Fabrik und der eigentlichen Fabrik währte über 12 Jahre. Er hat geendet mit dem gänzlichen Ruin der 300 cottage factories.²⁴⁸

²⁴⁷ In den Vereinigten Staaten ist derartige Reproduktion des Handwerks auf Grundlage der Maschinerie häufig. Die Konzentration, bei dem unvermeidlichen Übergang in den Fabrikbetrieb, wird eben deswegen, im Vergleich zu Europa und selbst zu England, dort mit Siebenmeilenstiefeln marschieren.

²⁴⁸ Vgl. „Reports of Insp. of Fact., 31st Oct. 1865“, p. 64.

Wo die Natur des Prozesses nicht von vornherein Produktion auf großer Stufenleiter bedang, durchliefen in der Regel die in den letzten Dezennien neu aufkommenden Industrien, wie z.B. Briefkuvert-, Stahlfedermachen usw., erst den Handwerksbetrieb und dann den Manufakturbetrieb als kurzlebige Übergangsphasen zum Fabrikbetrieb.

Diese Metamorphose bleibt dort am schwierigsten, wo die manufakturmäßige Produktion des Machwerks keine Stufenfolge von Entwicklungsprozessen, sondern eine Vielheit disparater Prozesse einschließt. Dies bildete z.B. ein großes Hindernis der Stahlfederfabrik. Jedoch wurde schon vor ungefähr anderthalb Dezennien ein Automat erfunden, der 6 disparate Prozesse auf einen Schlag verrichtet. Das Handwerk lieferte die ersten 12 Dutzend Stahlfedern 1820 zu 7 Pfd.St. 4 sh., die Manufaktur lieferte sie 1830 zu 8 sh., und die Fabrik liefert sie heute dem Großhandel zu 2 bis 6 d.²⁴⁹

²⁴⁹ Herr Gillott errichtete zu Birmingham die erste Stahlfedermanufaktur auf großer Stufenleiter. Sie lieferte schon 1851 über 180 Millionen

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and consumed 120 tons of steel. Birmingham has the monopoly of this industry in the United Kingdom, and at present produces thousands of millions of steel-pens. According to the Census of 1861, the number of persons employed was 1,428, of whom 1,268 females from 5 years of age upwards.

Federn und verzehrte jährlich 120 Tonnen Stahlblech. Birmingham, das diese Industrie im Vereinigten Königreich monopolisiert, produziert jetzt jährlich Milliarden von Stahlfedern. Die Zahl der beschäftigten Personen betrug nach dem Zensus von 1861: 1428, darunter 1268 Arbeiterinnen, vom 5. Jahr an einrolliert.

15.8.b. Reaction of the Factory System on Manufacture and Domestic Industries

We have seen that the introduction of the factory system necessarily follows the invention of machinery. Next, Marx looks at the effects of this the factory system on those industries which still work without machinery (manufactures and domestic industries).

464:1/o Along with the development of the factory system and of the revolution in agriculture that accompanies it, production in all the other branches of industry not only extends, but alters its character.

485:1/o Mit der Entwicklung des Fabrikwesens und der sie begleitenden Umwälzung der Agrikultur dehnt sich nicht nur die Produktionsleiter in allen andren Industriezweigen aus, sondern verändert sich auch ihr Charakter.

↑ First of all, production is expanded; ↓ but also the following qualitative changes: the *principle* of mechanized production, namely, a scientific analysis of the production process, takes hold even in areas where machinery itself is not applied,

The principle, carried out in the factory system, of analyzing the process of production into its constituent phases, and of solving the problems thus proposed by the application of mechanics, of chemistry, and of the whole range of the natural sciences, becomes the determining principle everywhere.

Das Prinzip des Maschinenbetriebs, den Produktionsprozeß in seine konstituierenden Phasen zu analysieren und die so gegebenen Probleme durch Anwendung der Mechanik, Chemie usw., kurz der Naturwissenschaften zu lösen, wird überall bestimmend.

↓ This dissolves the rigid division of labor of the manufactures which had centered around the subjective factor.

Hence, machinery squeezes itself into the manufacturing industries first for one detail process, then for another. Thus the solid crystal of their organisation, based on the old division of labor, becomes dissolved, and makes way for constant changes.

Maschinerie drängt sich daher bald für diesen, bald für jenen Teilprozeß in die Manufakturen. Die feste Kristallisation ihrer Gliederung, der alten Teilung der Arbeit entstammend, löst sich damit auf und macht fortwährendem Wechsel Platz.

↓ Independently of this, the factory system affects manufactures, handicraft, and even domestic industry by the creation of a cheap unskilled labor force, i.e., by throwing women and children on the labor market:

Independently of this, a radical change takes place in the composition of the collective laborer, a change of the persons working in combination. In contrast with the manufacturing period, the division of labor is thenceforth based, wherever possible, on the em-

Abgesehn hiervon wird die Zusammensetzung des Gesamtarbeiters oder des kombinierten Arbeitspersonals von Grund aus umgewälzt. Im Gegensatz zur Manufakturperiode gründet sich der Plan der Arbeitsteilung jetzt auf Anwendung der Weiberarbeit,

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ployment of women, of children of all ages, and of unskilled laborers, in one word, on cheap labor, as it is characteristically called in England. This is the case not only with all production on a large scale, whether employing machinery or not, but also with the so-called domestic industry, whether carried on in the houses of the workpeople or in small workshops. This modern so-called domestic industry has nothing, except the name, in common with the old-fashioned domestic industry, the existence of which pre-supposes independent urban handicrafts, independent peasant farming, and above all, a dwelling-house for the laborer and his family. That old-fashioned industry has now been converted into an outside department of the factory, the manufactory, or the warehouse. Besides the factory operatives, the manufacturing workmen and the handicraftsman, whom it concentrates in large masses at one spot, and directly commands, capital also sets in motion, by means, of invisible threads, another army; that of the workers in the domestic industries, who dwell in the large towns and -are also scattered over the face of the country. An example: The shirt factory of Messrs. Tillie at Londonderry, which employs 1,000 operatives in the factory itself, and 9,000 people spread up and down the country and working in their own houses.²⁵⁰

²⁵⁰ "Ch. Empl. Comm. II. Rep. 1864," p. LXVIII., n. 415.

The next paragraph 465:1/o seems to stress more the value-aspect than the mode of production:

1) Exploitation of women and children more shameless in manufactures than in the factory, since there are no machines to make the work easier. Is the exposure to poisonous or injurious substances limited to manufacture? Maybe in the sense that this exposure is diminished if the machine goes between the laborer and the object of labor. This often how hazardous situations are eliminated today. And workers do not fight against them because they know the answer will be that they are replaced by machines?

2) Exploitation in domestic industries even worse than in manufactures. Marx gives a number of reasons, but I still have to find the common denominator of them all.

3) Economy of means of production (which never economy but always squandering of labor-power) is the more antagonistic and murderous the less the machinery is developed.

465:1/o The exploitation of cheap and im-

der Arbeit von Kindern aller Altersstufen, ungeschickter Arbeiter, wo es immer tugar, kurz der „cheap labour“, wohlfeilen Arbeit, wie der Engländer sie charakteristisch nennt. Dies gilt nicht nur für alle auf großer Stufenleiter kombinierte Produktion, ob sie Maschinerie anwende oder nicht, sondern auch für die sog. Hausindustrie, ob ausgeübt in den Privatwohnungen der Arbeiter oder in kleinen Werkstätten. Diese sog. moderne Hausindustrie hat mit der altmodischen, die unabhängiges städtisches Handwerk, selbständige Bauernwirtschaft und vor allem ein Haus der Arbeiterfamilie voraussetzt, nichts gemein als den Namen. Sie ist jetzt verwandelt in das auswärtige Departement der Fabrik, der Manufaktur oder des Warenmagazins. Neben den Fabrikarbeitern, Manufakturarbeitern und Handwerkern, die es in großen Massen räumlich konzentriert und direkt kommandiert, bewegt das Kapital durch unsichtbare Fäden eine andre Armee in den großen Städten und über das flache Land zerstreuter Hausarbeiter. Beispiel: die Hemdenfabrik der Herren Tillie zu Londonderry, Irland, die 1000 Fabrikarbeiter und 9000 auf dem Land zerstreute Hausarbeiter beschäftigt.²⁵⁰

²⁵⁰ „Ch. Empl. Comm., II. Rep.“, 1864, p. LXVIII., n. 415.

486:1 Die Exploitation wohlfeiler und

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mature labor-power is carried out in a more shameless manner in modern Manufacture than in the factory proper. This is because the technical foundation of the factory system, namely, the substitution of machines for muscular power, and the light character of the labor, is almost entirely absent in Manufacture, and at the same time women and over-young children are subjected, in a most unconscionable way, to the influence of poisonous or injurious substances. This exploitation is more shameless in the so-called domestic industry than in manufactures, and that because the power of resistance in the laborers decreases with their dissemination; because a whole series of plundering parasites insinuate themselves between the employer and the workman; because a domestic industry has always to compete either with the factory system, or with manufacturing in the same branch of production; because poverty robs the workman of the conditions most essential to his labor, of space, light and ventilation; because employment becomes more and more irregular; and, finally, because in these the last resorts of the masses made “redundant” by Modern Industry and Agriculture, competition for work attains its maximum. Economy in the means of production, first systematically carried out in the factory system, and there, from the very beginning, coincident with the most reckless squandering of labor-power, and robbery of the conditions normally requisite for labor—this economy now shows its antagonistic and murderous side more and more in a given branch of industry, the less the social productive power of labor and the technical basis for a combination of processes are developed in that branch.

unreifer Arbeitskräfte wird in der modernen Manufaktur schamloser als in der eigentlichen Fabrik, weil die hier existierende technische Grundlage, Ersatz der Muskelkraft durch Maschinen und Leichtigkeit der Arbeit, dort größtenteils wegfällt, zugleich der weibliche oder noch unreife Körper den Einflüssen giftiger Substanzen usw. aufs gewissenloseste preisgegeben wird. Sie wird in der sog. Hausarbeit schamloser als in der Manufaktur, weil die Widerstandsfähigkeit der Arbeiter mit ihrer Zersplitterung abnimmt, eine ganze Reihe räuberischer Parasiten sich zwischen den eigentlichen Arbeitgeber und den Arbeiter drängt, die Hausarbeit überall mit Maschinen- oder wenigstens Manufakturbetrieb in demselben Produktionszweig kämpft, die Armut dem Arbeiter die nötigsten Arbeitsbedingungen, Raum, Licht, Ventilation usw. raubt, die Unregelmäßigkeit Beschäftigung wächst und endlich in diesen letzten Zufluchtsstätten der durch die große Industrie und Agrikultur „überzählig“ Gemachten die Arbeiterkonkurrenz notwendig ihr Maximum erreicht. Die durch den Maschinenbetrieb erst systematisch ausgebildete Ökonomisierung der Produktionsmittel, von vornherein zugleich rücksichtsloseste Verschwendung der Arbeitskraft und Raub an den normalen Voraussetzungen der Arbeitsfunktion, kehrt jetzt diese ihre antagonistische und menschenmörderische Seite um so mehr heraus, je weniger in einem Industriezweig die gesellschaftliche Produktivkraft der Arbeit und die technische Grundlage kombinierter Arbeitsprozesse entwickelt sind.

Let me try to put together what is behind all this: The exploitation is increased in those branches it is also increased where machinery is introduced (instance of the equalisation of the rate of exploitation). But this increase in exploitation is more murderous for the workers because it is not accompanied by an increase in technology: it must therefore be absolute, not relative surplus-value. Compare also 473:1.

Subsections c) and d) are examples. I should go through these examples and see which of the above principles they illustrate.

15.8.c. Modern Manufacture

466:1–467:1 I now proceed, by a few examples, to illustrate the principles laid down above. As a matter of fact, the reader is already familiar with numerous instances given in the chapter on the working-day.

First: use of women and children in unhealthy manufacturing jobs:

In the hardware manufactures of Birmingham and the neighbourhood, there are employed, mostly in very heavy work, 30,000 children and young persons, besides 10,000 women. There they are to be seen in the unwholesome brass-foundries, button factories, enamelling, galvanising, and lacker- ing works.²⁵¹ Owing to the excessive labor of their workpeople, both adult and non- adult, certain London houses where news- papers and books are printed, have got the ill-omened name of “slaughterhouses.”^{251a} Similar excesses are practised in book- binding, where the victims are chiefly women, girls, and children; young persons have to do heavy work in rope-walks and night- work in salt mines, candle manufactories, and chemical works; young people are worked to death at turning the looms in silk weaving, when it is not carried on by machinery.²⁵² One of the most shameful, the most dirty, and the worst paid kinds of labor, and one on which women and young girls are by preference employed, is the sort- ing of rags. It is well known that Great Britain, apart from its own immense store of rags, is the emporium for the rag trade of the whole world. They flow in from Japan, from the most remote States of South Amer- ica, and from the Canary Islands. But the chief sources of their supply are Germany, France, Russia, Italy, Egypt, Turkey, Bel- gium, and Holland. They are used for ma- nure, for making bedflocks, for shoddy, and they serve as the raw material of paper. The rag-sorters are the medium for the spread of small-pox and other infectious diseases, and they themselves are the first victims.²⁵³

486:2–488:1 Ich will nun an einigen Beispielen die oben aufgestellten Sätze erläutern. Der Leser kennt in der Tat schon massenhafte Belege aus dem Abschnitt über den Arbeitstag.

Die Metallmanufakturen in Birmingham und Umgegend wenden größtenteils für sehr schwere Arbeit 30 000 Kinder und junge Personen nebst 10 000 Weibern an. Man findet sie hier in den gesundheitswidrigen Gelbgießereien, Knopffabriken, Glasur-, Galvanisierungs- und Lackierarbeiten.²⁵¹

Die Arbeitsexzesse für Erwachsene und Un- erwachsne haben verschiedenen Londoner Zeitungs- und Buchdruckereien den rühmli- chen Namen: „Das Schlachthaus“ gesichert.^{251a} Dieselben Exzesse, deren Schlachtopfer hier namentlich Weiber, Mädchen und Kin- der, in der Buchbinderei. Schwere Arbeit für Unerwachsne in den Seilereien, Nachtar- beit in Salzwerken, Lichter- und andren che- mischen Manufakturen; mörderischer Ver- brauch von Jungen in Seidenwebereien, die nicht mechanisch betrieben werden, zum Drehen der Webstühle.²⁵² Eine der infam- sten, schmutzigsten und schlecht bezahl- testen Arbeiten, wozu mit Vorliebe junge Mädchen und Weiber verwandt werden, ist das Sortieren der Lumpen. Man weiß, daß Großbritannien, abgesehn von seinen eigen- un zähligen Lumpen, das Emporium für den Lumpenhandel der ganzen Welt bildet. Sie strömen dahin von Japan, den entfern- sten Staaten Südamerikas und den kanari- schen Inseln. Ihre Hauptzufuhrquellen aber sind Deutschland, Frankreich, Rußland, Ita- lien, Ägypten, Türkei, Belgien und Holland. Sie dienen zur Düngung, Fabrikation von Flocken (für Bettzeug), Shoddy (Kunstwol- le) und als Rohmaterial des Papiers. Die weiblichen Lumpensortierer dienen als Me- dien, um Pocken und andere ansteckende Seuchen, deren erste Opfer sie selbst sind, zu kolportieren.²⁵³

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²⁵¹ And now forsooth children are employed at file-cutting in Sheffield.

^{251a} „Ch. Empl. Comm., V. Rep. 1866,” p. 3, n. 24; p. 6, n. 55, 56; p. 7, n. 59, 60.

²⁵² I.c., pp. 114, 115, n. 6, 7. The commissioner justly remarks that though as a rule machines take the place of men, here literally young persons replace machines.

²⁵³ See the Report on the rag trade, and numerous details in “Public Health, VIII. Rep.” Lond. 1866, app., pp. 196, 208.

Over-work:

A classical example of over-work, of hard and inappropriate labor, and of its brutalising effects on the workman from his childhood upwards, is afforded not only by coal-mining and miners generally, but also by tile and brick making, in which industry the recently invented machinery is, in England, used only here and there. Between May and September the work lasts from 5 in the morning till 8 in the evening, and where the drying is done in the open air, it often lasts from 4 in the morning till 9 in the evening. Work from 5 in the morning till 7 in the evening is considered “reduced” and “moderate.” Both boys and girls of 6 and even of 4 years of age are employed. They work for the same number of hours, often longer, than the adults. The work is hard and the summer heat increases the exhaustion. In a certain tile-field at Mosley, e.g., a young woman, 24 years of age, was in the habit of making 2,000 tiles a day, with the assistance of 2 little girls, who carried the clay for her, and stacked the tiles. These girls carried daily 10 tons up the slippery sides of the clay pits, from a depth of 30 feet, and then for a distance of 210 feet.

467:1 “It is impossible for a child to pass through the purgatory of a tile-field without great moral degradation ... the low language, which they are accustomed to hear from their tenderest years, the filthy, indecent, and shameless habits, amidst which, unknowing, and half wild, they grow up, make them in after-life lawless, abandoned, dissolute ... A frightful source of demoralisation is the mode

²⁵¹ Und nun gar Kinder im Feilenschleifen zu Sheffield!

^{251a} „Ch. Empl. Comm., V. Rep.“, 1866, p. 3, n. 24; p. 6, n. 55, 56; p. 7, n. 59, 60.

²⁵² I.c. p. 114, 115, n. 6–7. Der Kommissär bemerkt richtig, daß, wenn sonst die Maschine den Menschen, hier der Junge verbatim die Maschine ersetzt.

²⁵³ Sieh Bericht über den Lumpenhandel und zahlreiche Belege: „Public Health, VIII. Report“, Lond. 1866. Appendix, p. 196–208.

Als klassisches Beispiel für Überarbeit, schwere und unpassende Arbeit, und daher folgende Brutalisierung der von Kindesbeinen an konsumierten Arbeiter kann, neben der Minen- und Kohlenproduktion, die Ziegel- oder Backsteinmacherei gelten, wozu in England die neuerfundene Maschine nur noch sporadisch angewandt wird (1866). Zwischen Mai und September dauert die Arbeit von 5 Uhr morgens bis 8 Uhr abends, und, wo Trocknung in freier Luft stattfindet, oft von 4 Uhr morgens bis 9 Uhr abends. Der Arbeitstag von 5 Uhr morgens bis 7 Uhr abends gilt für „reduziert“, „mäßig“. Kinder beiderlei Geschlechts werden vom 6. und selbst vom 4. Jahr an verwandt. Sie arbeiten dieselbe Stundenzahl, oft mehr als die Erwachsenen. Die Arbeit ist hart, und die Sommerhitze steigert noch die Erschöpfung. In einer Ziegelei zu Mosley z.B. machte ein 24 jähriges Mädchen 2000 Ziegel täglich, unterstutzt von zwei unerwachsenen Mädchen als Gehilfen, welche den Lehm trugen und die Ziegelsteine aufhäften. Diese Mädchen schleppten täglich 10 Tonnen die schlüpfrigen Seiten der Ziegelgrube von einer Tiefe von 30 Fuß herauf und über eine Entfernung von 210 Fuß.

488:1 „Es ist unmöglich für ein Kind, durch das Fegfeuer einer Ziegelei zu passieren ohne große moralische Degradation ... Die nichtswürdige Sprache, die sie vom zartesten Alter an zu hören bekommen, die unflätigen, unanständigen und schamlosen Gewohnheiten, unter denen sie unwissend und verwildert aufwachsen, machen sie für die spätere Lebenszeit gesetzlos, verworfen, liederlich ...

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of living. Each moulder, who is always a skilled laborer, and the chief of a group, supplies his 7 subordinates with board and lodging in his cottages. Whether members of his family or not, the men, boys, and girls all sleep in the cottage, which contains generally two, exceptionally 3 rooms, all on the ground floor, and badly ventilated. These people are so exhausted after the day's hard work, that neither the rules of health, of cleanliness, nor of decency are in the least observed. Many of these cottages are models of untidiness, dirt, and dust ... The greatest evil of the system that employs young girls on this sort of work, consists in this, that, as a rule, it chains them fast from childhood for the whole of their after-life to the most abandoned rabble. They become rough, foul-mouthed boys, before Nature has taught them that they are women. Clothed in a few dirty rags, the legs naked far above the knees, hair and face besmeared with dirt, they learn to treat all feelings of decency and of shame with contempt. During meal-times they lie at full length in the fields, or watch the boys bathing in a neighbouring canal. Their heavy day's work at length completed, they put on better clothes, and accompany the men to the public houses."

That excessive insobriety is prevalent from childhood upwards among the whole of this class, is only natural.

467:3 "The worst is that the brickmakers despair of themselves. You might as well, said one of the better kind to a chaplain of Southallfield, try to raise and improve the devil as a brickie, sir!"²⁵⁴

²⁵⁴ "Ch. Empl. Comm. V. Rep., 1866," pp. xvi-xviii, n. 86-97, and pp. 130-133, n. 39-71. See also III. Rep., 1864, pp. 48, 56.

Economy of constant capital is squandering of labor:

As to the manner, in which capital effects an economy in the requisites of labor, in

Eine furchtbare Quelle der Demoralisation ist die Art der Wohnlichkeit. Jeder moulder (Former), (der eigentlich geschickte Arbeiter und Chef einer Arbeitergruppe) „liefert seiner Bande von 7 Personen Logis und Tisch in seiner Hütte oder cottage. Ob zu seiner Familie gehörige oder nicht, Männer, Jungen, Mädchen schlafen in der Hütte. Diese besteht gewöhnlich aus 2, nur ausnahmsweis aus 3 Zimmern, alle auf dem Erdgeschoß, mit wenig Ventilation. Die Körper sind so erschöpft durch die große Transpiration während des Tags, daß weder Gesundheitsregeln, Reinlichkeit noch Anstand irgendwie beobachtet werden. Viele dieser Hütten sind wahre Modelle von Unordnung, Schmutz und Staub ... Das größte Übel des Systems, welches junge Mädchen zu dieser Art Arbeit verwendet, besteht darin, daß sie in der Regel von Kindheit an für ihr ganzes spätes Leben an das verworfenste Gesindel festkettet. Sie werden rohe, bösmäulige Buben (rough, foulmouthed boys), bevor die Natur sie gelehrt hat, daß sie Weiber sind. Gekleidet in wenige schmutzige Lumpen, die Beine weit über das Knie entblößt, Haar und Gesicht mit Dreck beschmiert, lernen sie alle Gefühle der Sittsamkeit und der Scham mit Verachtung behandeln. Während der Essenszeit liegen sie auf den Feldern ausgestreckt oder gucken den Jungen zu, die in einem benachbarten Kanal baden. Ist ihr schweres Tagewerk endlich vollbracht, so zieht sie beßre Kleider an und begleiten die Männer in Bierkneipen."

488:2 Daß die größte Versoffenheit von Kindesbeinen an in dieser ganzen Klasse herrscht, ist nur naturgemäß.

488:3 „Das Schlimmste ist, daß die Ziegelmacher an sich selbst verzweifeln. Sie könnten, sagte einer der Bessern zum Kaplan von Southallfield, ebenso wohl versuchen, den Teufel zu erheben und zu bessern als einen Ziegler, mein Herr! („You might as well try to raise and improve the devil as a brickie, Sir!")²⁵⁴

²⁵⁴ „Child. Empl. Comm., V. Report“, 1866, p. XVI-XVIII, n. 86-97 und p. 130 bis 133, n. 39-71. Vgl. auch ib., III. Report, 1864, p. 48, 56.

488:4-489:1 Über die kapitalistische Ökonomisierung der Arbeitsbedingungen in der

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modern Manufacture (in which I include all workshops of larger size, except factories proper), official and most ample material bearing on it is to be found in the Public Health Reports IV. (1863) and VI. (1864). The description of the Workshops, more especially those of the London printers and tailors, surpasses the most loathsome phantasies of our romance writers. The effect on the health of the workpeople is self-evident. Dr. Simon, the chief medical officer of the Privy Council and the official editor of the "Public Health Reports," says:

"In my fourth Report (1861) [published 1862] I showed, how it is practically impossible for the workpeople to insist upon that which is their first sanitary right, viz., the right that, no matter what the work for which their employer brings them together, the labor, so far as it depends upon him, should be freed from all avoidably unwholesome conditions. I pointed out, that while the workpeople are practically incapable of doing themselves this sanitary justice, they are unable to obtain any effective support from the paid administrations of the sanitary police ... The life of myriads of workmen and workwomen is now uselessly tortured and shortened by the never-ending physical suffering that their mere occupation begets."²⁵⁵

²⁵⁵ "Public Health. Sixth Rep.," Lond. 1864, pp. 29, 31.

In illustration of the way in which the workrooms influence the state of health Dr. Simon gives the following table of mortality.²⁵⁶ Number of persons of all ages employed in the respective industries. Industries compared as regards health. Death-rate per 100,000 men in the respective industries between the stated ages Age 25–35. Age 35–45. Age 45–55. 958,265 Agriculture in England & Wales 743 805 1,145 22,301 men 12,379 women London tailors 958 1,262 2,093 13,803 London printers 894 1,747 2,367

modernen Manufaktur (worunter hier alle Werkstätten auf großer Stufenleiter, außer eigentlichen Fabriken, zu verstehn) findet man offizielles und reichlichstes Material in dem IV. (1861) und VI. (1864) „Public Health Report“. Die Beschreibung der workshops (Arbeitslokale), namentlich der Londoner Drucker und Schneider, überbietet die ekelhaftesten Phantasien unsrer Romanschreiber. Die Wirkung auf den Gesundheitszustand der Arbeiter ist selbstverständlich. Dr. Simon, der oberste ärztliche Beamte des Privy Council und offizielle Herausgeber der „Public Health Reports“, sagt u.a.:

„In meinem vierten Bericht, (1861) „zeigte ich, wie es für die Arbeiter praktisch unmöglich ist, darauf zu bestehen, was ihr erstes Gesundheitsrecht ist, das Recht, daß, zu welchem Werk immer ihr Anwender sie versammelt, die Arbeit, soweit es von ihm abhängt, von allen vermeidbaren gesundheitswidrigen Umständen befreit sein soll. Ich wies nach, daß, während die Arbeiter praktisch unfähig sind, sich selbst diese Gesundheitsjustiz zu verschaffen, sie keinen wirksamen Beistand von den bestellten Administratoren der Gesundheitspolizei erlangen können ... Das Leben von Myriaden von Arbeitern und Arbeiterinnen wird jetzt nutzlos gefoltert und verkürzt durch das endlose physische Leiden, welches ihre bloße Beschäftigung erzeugt.“²⁵⁵

²⁵⁵ „Public Health, VI. Rep.“, Lond. 1864, p. 29, 31.

489:2–3 Zur Illustration des Einflusses der Arbeitslokale auf den Gesundheitszustand gibt Dr. Simon folgende Sterblichkeitsliste:

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Personenzahl aller Altersstufen in den resp. Industrien	resp. Industriestufen angewandt	Industrien verglichen in bezug auf Gesundheit	Sterblichkeitsrate auf 100 000 Männer in den resp. Industrien zu den angegebenen Altersstufen		
			25. bis 35. J.	35. bis 45. J.	45. bis 55. J.
958 265		Agrikult. in England	743	805	1145
			und Wales		
22 301	Männer				
u. 12 377	Weiber	Lond. Schneider	958	1262	2093
13 803		Lond. Drucker	894	1747	2367 ²⁵⁶

²⁵⁶ I.c., p. 30. Dr. Simon remarks that the mortality among the London tailors and printers between the ages of 25 and 35 is in fact much greater, because the employers in London obtain from the country a great number of young people up to 30 years of age, as "apprentices" and "improvers," who come for the purpose of being perfected in their trade. These figure in the census as Londoners, they swell out the number of heads on which the London death-rate is calculated, without adding proportionally to the number of deaths in that place. The greater part of them in fact return to the country, and especially in cases of severe illness. (I.c.)

²⁵⁶ I.c. p. 30. Dr. Simon bemerkt, daß die Sterblichkeit der Londoner Schneider und Drucker vom 25.–35. Jahr in der Tat viel größer ist, weil ihre Londoner Anwender eine große Zahl junger Leute zum 30. Jahr hinauf vom Land als „Lehrlinge“ und „improvers“ (die sich in ihrem Handwerk aufbilden wollen) erhalten. Diese figurieren im Zensus als Londoner, sie schwellen die Kopfzahl, worauf die Londoner Sterblichkeitsrate berechnet wird, ohne verhältnismäßig zur Zahl der Londoner Todesfälle beizutragen. Großer Teil von ihnen kehrt nämlich und ganz besonders in schweren Krankheitsfällen, zum Land zurück. (I.c.)

15.8.d. Modern Domestic Industry

The influence of machinery did not even spare the workers's own homes, by poisoning the conditions under which the home workers had to work.

468:5/o I now come to the so-called domestic industry. In order to get an idea of the horrors of this sphere, in which capital conducts its exploitation in the background of modern mechanical industry, one must go to the apparently quite idyllic trade of nail-making,²⁵⁷ carried on in a few remote villages of England. In this place, however, it will be enough to give a few examples from those branches of the lace-making and straw-plaiting industries that are not yet carried on by the aid of machinery, and that as yet do not compete with branches carried on in factories or in manufactories.

²⁵⁷ I allude here to hammered nails, as distinguished from nails cut out and made by machinery. See "Child. Empl. Comm., Third Rep.," pp. xi., xix., n. 125–130, p. 52, n. 11, p. 114, n. 487, p. 137, n. 674.

489:4/o Ich wende mich jetzt zur sog. Hausarbeit. Um sich eine Vorstellung von dieser auf dem Hintergrund der großen Industrie aufgebauten Exploitationssphäre des Kapitals und ihren Ungeheuerlichkeiten zu machen, betrachte man z.B. die scheinbar ganz idyllische, in einigen abgelegnen Dörfern Englands betriebne Nägelmacherei.²⁵⁷ Hier genügen einige Beispiele aus den noch gar nicht maschinenmäßig betriebnen oder mit Maschinen- und Manufakturbetrieb konkurrierenden Zweigen der Spitzenfabrik und Strohflechtereie.

²⁵⁷ Es handelt sich hier um gehämmerte Nägel im Unterschied von den maschinenmäßig fabrizierten geschnittenen Nägeln. Siehe „Child. Empl. Comm., III. Report“, p. XI, p. XIX, n. 125–130; p. 52, n. 11; p. 113–114, n. 487; p. 137, n. 674.

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469:1–2 Of the 150,000 persons employed in England in the production of lace, about 10,000 fall under the authority of the Factory Act, 1861. Almost the whole of the remaining 140,000 are women, young persons, and children of both sexes, the male sex, however, being weakly represented. The state of health of this cheap material for exploitation will be seen from the following table, computed by Dr. Trueman, physician to the Nottingham General Dispensary. Out of 686 female patients who were lace-makers, most of them between the ages of 17 and 24, the number of consumptive ones were: 1852.—1 in 45. 1857.—1

in 13. 1853.—1 in 28. 1858.—1 in 15.

1854.—1 in 17. 1859.—1 in 9. 1855.—1 in 18. 1860.—1 in 8. 1856.—1 in 15. 1861.—1 in 8.²⁵⁸

²⁵⁸ “Ch. Empl. Comm., II. Rep.,” p. xxii, n. 166.

469:3 This progress in the rate of consumption ought to suffice for the most optimist of progressists, and for the biggest hawker of lies among the Free-trade bagmen of Germany.

469:4 The Factory Act of 1861 regulates the actual making of the lace, so far as it is done by machinery, and this is the rule in England. The branches that we are now about to examine, solely with regard to those of the workpeople who work at home, and not those who work in manufactories or warehouses, fall into two divisions, viz. (1), finishing; (2), mending. The former gives the finishing touches to the machine-made lace, and includes numerous sub-divisions.

490:1–2 Von den 150 000 Personen, die in der englischen Spitzenproduktion beschäftigt, fallen ungefähr 10 000 unter die Botmäßigkeit des Fabrikakts von 1861. Die ungeheure Mehrzahl der übrigbleibenden 140 000 sind Weiber, junge Personen und Kinder beiderlei Geschlechts, obgleich das männliche Geschlecht nur schwach vertreten ist. Der Gesundheitszustand dieses „wohlfeilen“ Exploitationsmaterials ergibt sich aus folgender Aufstellung des Dr. Trueman, Arzt beim General Dispensary von Nottingham. Von je 686 Patienten, Spitzenmacherinnen, meist zwischen dem 17. und 24. Jahr, waren schwindsüchtig:

1852	1 auf	45,
1853	1 auf	28,
1854	1 auf	17,
1855	1 auf	18,
1856	1 auf	15,
1857	1 auf	13,
1858	1 auf	15,
1859	1 auf	9,
1860	1 auf	8,
1861	1 auf	8. ²⁵⁸

²⁵⁸ „Child. Empl. Comm., II. Report“, p. XXII, n. 166.

490:3 Dieser Fortschritt in der Rate der Schwindsucht muß dem optimistischsten Fortschrittler und lügenfauchendsten deutsche Freihandelshausierburschen genügen.

490:4 Der Fabrikakt von 1861 regelt das eigentliche Machen der Spitzen, soweit es durch Maschinerie geschieht, und dies ist die Regel in England. Die Zweige, die wir hier kurz berücksichtigen, und zwar nicht, soweit die Arbeiter in Manufakturen, Warenhäusern usw. konzentriert, sondern nur sofern sie sog. Hausarbeiter sind, zerfallen 1. in das finishing (letztes Zurechtmachen der maschinenmäßig fabrizierten Spitzen, eine Kategorie, die wieder zahlreiche Unterabteilungen einschließt), 2. Spitzenklöppeln.

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470:1–2 The lace finishing is done either in what are called “mistresses’ houses,” or by women in their own houses, with or without the help of their children. The women who keep the “mistresses’ houses” are themselves poor. The workroom is in a private house. The mistresses take orders from manufacturers, or from warehousemen, and employ as many women, girls, and young children as the size of their rooms and the fluctuating demand of the business will allow. The number of the workwomen employed in these workrooms varies from 20 to 40 in some, and from 10 to 20 in others. The average age at which the children commence work is six years, but in many cases it is below five. The usual working-hours are from 8 in the morning till eight in the evening, with 1 1/2 hours for meals, which are taken at irregular intervals, and often in the foul workrooms. When business is brisk, the labor frequently lasts from 8 or even 6 o’clock in the morning till 10, 11, or 12 o’clock at night. In English barracks the regulation space allotted to each soldier is 500–600 cubic feet, and in the military hospitals 1,200 cubic feet. But in those finishing sties there are but 67 to 100 cubic feet to each person. At the same time the oxygen of the air is consumed by gas-lights. In order to keep the lace clean, and although the floor is tiled or flagged, the children are often compelled, even in winter, to pull off their shoes.

“It is not at all uncommon in Nottingham to find 14 to 20 children huddled together in a small room, of, perhaps, not more than 12 feet square, and employed for 15 hours out of the 24, at work that of itself is exhausting, from its weariness and monotony, and is besides carried on under every possible unwholesome condition . . . Even the very youngest children work with a strained attention and a rapidity that is astonishing, hardly ever giving their fingers rest or glowering their motion. If a question be asked them, they never raise their eyes from their work from fear of losing a single moment.”

490:5–491:1 Das Lace finishing wird als Hausarbeit betrieben entweder in sog. „Mistresses Houses“ oder von Weibern, einzeln oder mit ihren Kindern, in ihren Privatwohnungen. Die Weiber, welche die „Mistresses Houses“ halten, sind selbst arm. Das Arbeitslokal bildet Teil ihrer Privatwohnung. Sie erhalten Aufträge von Fabrikanten, Besitzern von Warenmagazinen usw. und wenden Weiber, Mädchen und junge Kinder an, je nach dem Umfang ihrer Zimmer und der fluktuierenden Nachfrage des Geschäfts. Die Zahl der beschäftigten Arbeiterinnen wechselt von 20 zu 40 in einigen, von 10 zu 20 in andren dieser Lokale. Das durchschnittliche Minimalalter, worin Kinder beginnen, ist 6 Jahre, manche jedoch unter 5 Jahren. Die gewöhnliche Arbeitszeit währt von 8 Uhr morgens bis 8 Uhr abends, mit 1 1/2 Stunden für Mahlzeiten, die unregelmäßig und oft in den stinkigen Arbeitslöchern selbst genommen werden. Bei gutem Geschäft währt die Arbeit oft von 8 Uhr (manchmal 6 Uhr) morgens bis 10, 11 oder 12 Uhr nachts. In englischen Kasernen beträgt der vorschriftsmäßige Raum für jeden Soldaten 500–600 Kubikfuß, in den Militärlazaretten 1200. In jenen Arbeitslöchern kommen 67–100 Kubikfuß auf jede Person. Gleichzeitig verzehrt Gaslicht den Sauerstoff der Luft. Um die Spitzen rein zu halten, müssen die Kinder oft die Schuhe ausziehen, auch im Winter, obgleich das Estrich aus Pflaster oder Ziegeln besteht.

„Es ist nichts Ungewöhnliches in Nottingham, 15 bis 20 Kinder in einem kleinen Zimmer von vielleicht nicht mehr als 12 Fuß im Quadrat zusammengepöckelt zu finden, während 15 Stunden aus 24 beschäftigt an einer Arbeit, an sich selbst erschöpfend durch Überdruß und Monotonie, zudem unter allen nur möglichen gesundheitszerstörenden Umständen ausgeübt . . . Selbst die jüngsten Kinder arbeiten mit einer gespannten Aufmerksamkeit und Geschwindigkeit, die erstaunlich sind, fast niemals ihren Fingern Ruhe oder langsamre Bewegung gönnend. Richtet man Fragen an sie, so erheben sie das Auge nicht von der Arbeit, aus Furcht, einen Moment zu

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The "long stick" is used by the mistresses as a stimulant more and more as the workinghours are prolonged.

"The children gradually tire and become as restless as birds towards the end of their long detention at an occupation that is monotonous, eye-straining, and exhausting from the uniformity in the posture of the body. Their work is like slavery."²⁵⁹

²⁵⁹ "Ch. Empl. Comm., II. Rep., 1864," pp. xix., xx., xxi.

When women and their children work at home, which now-a-days means in a hired room, often in a garret, the state of things is, if possible, still worse. This sort of work is given out within a circle of 80 miles radius from Nottingham. On leaving the warehouses at 9 or 10 o'clock at night, the children are often given a bundle of lace to take home with them and finish. The Pharisee of a capitalist represented by one of his servants, accompanies this action, of course, with the unctuous phrase: "That's for mother," yet he knows well enough that the poor children must sit up and help.²⁶⁰

²⁶⁰ l.c., pp. xxi, xxii.

471:1–2a Pillow lace-making is chiefly carried on in England in two agricultural districts; one, the Honiton lace district, extending from 20 to 30 miles along the south coast of Devonshire, and including a few places in North Devon; the other comprising a great part of the counties of Buckingham, Bedford, and Northampton, and also the adjoining portions of Oxfordshire and Huntingdonshire. The cottages of the agricultural laborers are the places where the work is usually carried on. Many manufacturers employ upwards of 3,000 of these lace-makers, who are chiefly children and young persons of the female sex exclusively. The state of things described as incidental to lace finishing is here repeated, save that

verlieren."

491:2–3 Der „lange Stock“ dient den „mistresses“ als Anregungsmittel im Verhältnis, worin die Arbeitszeit verlängert wird.

„Die Kinder ermüden allmählich und werden so rastlos wie Vögel gegen das Ende ihrer langen Gebundenheit an eine Geschäftigung, eintönig, für die Augen angreifend, erschöpfend durch die Einförmigkeit der Körperhaltung. Es ist wahres Sklavenwerk.“ („Their work is like slavery.“)²⁵⁹

²⁵⁹ „Child. Empl. Comm., II. Report“, 1864, p. XIX, XX, XXI.

491:4/o Wo Frauen mit ihren eignen Kindern zu Hause, d.h. im modernen Sinn, in einem gemieteten Zimmer, häufig in einer Dachstube arbeiten, sind die Zustände womöglich noch schlimmer. Diese Art Arbeit wird 80 Meilen im Umkreis von Nottingham ausgegeben. Wenn das in den Warenhäusern beschäftigte Kind sie 9 oder 10 Uhr abends verläßt, gibt man ihm oft noch ein Bündel mit auf den Weg, um es zu Hause fertigzumachen. Der kapitalistische Pharisee, vertreten durch einen seiner Lohnknechte, tut das natürlich mit der salbungsvollen Phrase: „das sei für Mutter“, weiß aber sehr wohl, daß das arme Kind aufsitzen und helfen muß.²⁶⁰

²⁶⁰ l.c. p. XXI, XXII.

492:1–2 Die Industrie des Spitzenklöppelns wird hauptsächlich in zwei englischen Agrikulturdistrikten betrieben, dem Honiton Spitzendistrikt, 20 bis 30 Meilen längs der Südküste von Devonshire, mit Einschluß weniger Plätze von Nord-Devon, und einem andren Distrikt, der großen Teil der Grafschaften von Buckingham, Bedford, Northampton und die benachbarten Teile von Oxfordshire und Huntingdonshire umfaßt. Die cottages der Ackerbautagelöhner bilden durchschnittlich die Arbeitslokale. Manche Manufakturherrn wenden über 3000 dieser Hausarbeiter an, hauptsächlich Kinder und junge Personen, ausschließlich weiblichen Geschlechts. Die beim Lace finishing beschriebenen Zustände wiederholen sich. Nur

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instead of the “mistresses’ houses,” we find what are called “lace-schools,” kept by poor women in their cottages. From their fifth year and often earlier, until their twelfth or fifteenth year, the children work in these schools; during the first year the very young ones work from four to eight hours, and later on, from six in the morning till eight and ten o’clock at night.

“The rooms are generally the ordinary living rooms of small cottages, the chimney stopped up to keep out draughts, the inmates kept warm by their own animal heat alone, and this frequently in winter. In other cases, these so-called school-rooms are like small store-rooms without fire-places ... The overcrowding in these dens and the consequent vitiation of the air are often extreme. Added to this is the injurious effect of drains, privies, decomposing substances, and other filth usual in the purlieu of the smaller cottages.”

With regard to space:

“In one lace-school 18 girls and a mistress, 35 cubic feet to each person; in another, where the smell was unbearable, 18 persons and 24 1/2 cubic feet per head. In this industry are to be found employed children of 2 and 2 1/2 years.”²⁶¹

²⁶¹ l.c., pp. xxix., xxx.

Straw-plaiting:

471:3–472:1 Where lace-making ends in the counties of Buckingham and Bedford, straw-plaiting begins, and extends over a large part of Hertfordshire and the westerly and northerly parts of Essex. In 1861, there were 40,043 persons employed in straw-plaiting and straw-hat making; of these 3,815 were males of all ages, the rest females, of whom 14,913, including about 7,000 children, were under 20 years of age. In the place of the lace-schools we find here the “straw-plait schools.” The children commence their instruction in straw-plaiting generally in their 4th, often between their 3rd and 4th year. Education, of course, they get none. The children themselves call the elementary schools, “natural schools,” to

treten an die Stelle der „mistresses houses“ die sog. „lace schools“ (Spitzenschulen), gehalten von armen Weibern in ihren Hütten. Vom 5. Jahr an, manchmal jünger, bis zum 12. oder 15. arbeiten die Kinder in diesen Schulen, während des ersten Jahres die jüngsten von 4 bis 8 Stunden, später von 6 Uhr morgens bis 8 und 10 Uhr abends.

„Die Zimmer sind im allgemeinen gewöhnliche Wohnstuben kleiner cottages, der Kamin zugestopft zur Abwehr von Luftzug, die Insassen manchmal auch im Winter nur von ihrer eignen animalischen Wärme geheizt. In andren Fällen sind diese sog. Schulzimmer kleinen Vorratskammern ähnliche Räume, ohne Feuerplatz ... Die Überfüllung dieser Löcher und die dadurch bewirkte Luftverpestung sind oft extrem. Dazu kommt die schädliche Wirkung von Gerinnen, Abtritten, verwesenden Stoffen und andrem Unrat, gewöhnlich in den Zugängen zu kleineren cottages.“

492:3–4 Mit Bezug auf den Raum:

„In einer Spitzenschule 18 Mädchen und Meisterin, 33 Kubikfuß für jede Person; in einer andren, wo unerträglicher Gestank, 18 Personen, per Kopf 24 1/2 Kubikfuß. Man findet in dieser Industrie Kinder von 2 und 2 1/2 Jahren verwandt.“²⁶¹

²⁶¹ l.c. p. XXIX, XXX.

492:5–493:1 Wo das Spitzenklöppeln in den ländlichen Grafschaften von Buckingham und Bedford aufhört, beginnt die Strohflechterei. Sie erstreckt sich über großen Teil von Hertfordshire und die westlichen und nördlichen Teile von Essex. Es waren 1861 beschäftigt im Strohflechten und Strohhutmachen 48 043 Personen, 3815 davon männlichen Geschlechts aller Altersstufen, die andren weiblichen Geschlechts, und zwar 14 913 unter 20 Jahren, davon an 7000 Kinder. An die Stelle der Spitzenschulen treten hier die „straw plait schools“ (Strohflechterschulen). Die Kinder beginnen hier den Unterricht im Strohflechten gewöhnlich vom 4., manchmal zwischen dem 3. und 4. Jahr. Erziehung erhalten sie natürlich

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distinguish them from these blood-sucking institutions, in which they are kept at work simply to get through the task, generally 30 yards daily, prescribed by their half-starved mothers. These same mothers often make them work at home, after school is over, till 10, 11, and 12 o'clock at night. The straw cuts their mouths, with which they constantly moisten it, and their fingers. Dr. Ballard gives it as the general opinion of the whole body of medical officers in London, that 300 cubic feet is the minimum space proper for each person in a bedroom or workroom. But in the straw-plait schools space is more sparingly allotted than in the lace-schools, "12 2/3, 17, 18 1/2 and below 22 cubic feet for each person."

The smaller of these numbers, says one of the commissioners, Mr. White, represents less space than the half of what a child would occupy if packed in a box measuring 3 feet in each direction.

Thus do the children enjoy life till the age of 12 or 14. The wretched half-starved parents think of nothing but getting as much as possible out of their children. The latter, as soon as they are grown up, do not care a farthing, and naturally so, for their parents, and leave them.

"It is no wonder that ignorance and vice abound in a population so brought up . . . Their morality is at the lowest ebb, . . . a great number of the women have illegitimate children, and that at such an immature age that even those most conversant with criminal statistics are astounded."²⁶²

²⁶² I.c., pp. xi., xii.

And the native land of these model families is the pattern Christian country for Europe; so says at least Count Montalembert, certainly a competent authority on Christianity!

472:5 Wages in the above industries, miserable as they are (the maximum wages of a child in the straw-plait schools rising in rare cases to 3 shillings), are reduced far below

keine. Die Kinder selbst nennen die Elementarschulen „natural schools“ (natürliche Schulen) im Unterschied zu diesen Blutaus-saugungsanstalten, worin sie einfach an der Arbeit gehalten werden, um das von ihren halbverhungerten Müttern vorgeschriebne Machwerk, meist 30 Yards per Tag, zu verfertigen. Diese Mütter lassen sie dann oft noch zu Haus bis 10, 11, 12 Uhr nachts arbeiten. Das Stroh schneidet ihnen Finger und Mund, durch den sie es beständig anfeuchten. Nach der von Dr. Ballard resümierten Gesamtansicht der medizinischen Beamten Londons bilden 300 Kubikfuß den Minimalraum für jede Person in einem Schlaf- oder Arbeitszimmer. In den Strohflechtschulen ist der Raum aber noch spärlicher zugemessen als in den Spitzenschulen, 12 2/3, 17, 18 1/2 und unter 22 Kubikfuß für jede Person.

„Die kleinre dieser Zahlen“, sagt Kommissär White, „repräsentieren weniger Raum als die Hälfte von dem, den ein Kind einnehmen würde, wenn verpackt in eine Schachtel von 3 Fuß nach allen Dimensionen.“

493:2–3 Dies der Lebensgenuß der Kinder bis zum 12. oder 14. Jahr. Die elenden, verkommenen Eltern sinnen nur darauf, aus den Kindern soviel als möglich herauszuschlagen. Aufgewachsen fragen die Kinder natürlich keinen Deut nach den Eltern und verlassen sie.

„Es ist kein Wunder, daß Unwissenheit und Laster überströmen in einer so aufgezüchteten Bevölkerung . . . Ihre Moral steht auf der niedrigsten Stufe . . . Eine große Anzahl der Weiber hat illegitime Kinder und manche in so unreifem Alter, daß selbst die Vertrauten der Kriminalstatistik darüber erstarren.“²⁶²

²⁶² I.c. p. XL, XLI.

493:4 Und das Heimatsland dieser Musterfamilien ist, so sagt der sicher im Christentum kompetente Graf Montalembert, Europas christliches Musterland!

493:5 Der Arbeitslohn, in den eben behandelten Industriezweigen überhaupt jämmerlich (der ausnahmsweise Maximallohn der Kinder in den Strohflechtschulen 3 sh.),

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their nominal amount by the prevalence of the truck system everywhere, but especially in the lace districts.²⁶³

²⁶³ "Child. Empl. Comm., I. Rep. 1863," p. 185.

wird noch tief unter seinen Nominalbetrag herabgedrückt durch das namentlich in den Spitzendistrikten allgemein vorherrschende Trucksystem.²⁶³

²⁶³ „Child. Empl. Comm., I. Rep.“, 1863, p. 185.

15.8.e. Passage of Modern Manufacture and Domestic Industry into Modern Mechanical Industry. The Hastening of This Revolution by the Application of the Factory Acts to those Industries

First portion of subsection e) is still an example: Transition of the wearing apparel industry to the factory system with the help of the sewing machine. After exploitation can no longer be increased by the reckless wearing down of labor-power, introduction of machinery. We see that exploitation comes first, not the development of productive forces.

473:1 The cheapening of labor-power, by sheer abuse of the labor of women and children, by sheer robbery of every normal condition requisite for working and living, and by the sheer brutality of overwork and night-work, meets at last with natural obstacles that cannot be overstepped. So also, when based on these methods, do the cheapening of commodities and capitalist exploitation in general. So soon as this point is at last reached—and it takes many years—the hour has struck for the introduction of machinery, and for the thenceforth rapid conversion of the scattered domestic industries and also of manufactures into factory industries.

473:2 An example, on the most colossal scale, of this movement is afforded by the production of wearing apparel. This industry, according to the classification of the Children's Employment Commission, comprises straw-hat makers, ladies'-hat makers, cap-makers, tailors, milliners and dress-makers, shirt-makers, corset-makers, glove-makers, shoemakers, besides many minor branches, such as the making of neck-ties, collars, etc. In 1861, the number of females employed in these industries, in England and Wales, amounted to 586,299, of these 115,242 at the least were under 20, and 16,650 under 15 years of age. The num-

494:1 Die Verwohlfeilerung der Arbeitskraft durch bloßen Mißbrauch weiblicher und unreifer Arbeitskräfte, bloßen Raub aller normalen Arbeits- und Lebensbedingungen und bloße Brutalität der Über- und Nacharbeit, stößt zuletzt auf gewisse nicht weiter überschreitbare Naturschranken, und mit ihr auch die auf diesen Grundlagen beruhende Verwohlfeilerung der Waren und kapitalistische Exploitation überhaupt. Sobald dieser Punkt endlich erreicht ist, und es dauert lange, schlägt die Stunde für Einführung der Maschinerie und die nun rasche Verwandlung der zersplitterten Hausarbeit (oder auch Manufaktur) in Fabrikbetrieb.

494:2 Das kolossalste Beispiel dieser Bewegung liefert die Produktion von „Wearing Apparel“ (zum Anzug gehörige Artikel). Nach der Klassifikation der „Child. Empl. Comm.“ umfaßt diese Industrie Strohhut- und Damenhutmacher, Kappenmacher, Schneider, milliners und dressmakers,²⁶⁴ Hemdenmacher und Näherinnen, Korsetten-, Handschuh-, Schuhmacher, nebst vielen kleineren Zweigen, wie Fabrikation von Halsbinden, Halskragen usw. Das in England und Wales in diesen Industrien beschäftigte weibliche Personal betrug 1861: 586 298, wovon mindestens 115 242 unter 20, 16 560 unter 15 Jahren. Zahl dieser Arbeite-

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ber of these workwomen in the United Kingdom in 1861, was 750,334. The number of males employed in England and Wales, in hat-making, shoemaking, glove-making and tailoring was 437,969; of these 14,964 under 15 years, 89,285 between 15 and 20, and 333,117 over 20 years. Many of the smaller branches are not included in these figures. But take the figures as they stand; we then have for England and Wales alone, according to the census of 1861, a total of 1,024,277 persons, about as many as are absorbed by agriculture and cattle breeding. We begin to understand what becomes of the immense quantities of goods conjured up by the magic of machinery, and of the enormous masses of workpeople, which that machinery sets free.

²⁶⁴ English?

The production of wearing apparel is carried on partly in manufactories in whose workrooms there is but a reproduction of that division of labor, the *membra disjecta* of which were found ready to hand; partly by small master-handicraftsmen; these, however, do not, as formerly, work for individual consumers, but for manufactories and warehouses, and to such an extent that often whole towns and stretches of country carry on certain branches, such as shoemaking, as a speciality; finally, on a very great scale by the so-called domestic workers, who form an external department of the manufactories, warehouses, and even of the workshops of the smaller masters.²⁶⁵ The raw material, etc., is supplied by mechanical industry, the mass of cheap human material (*taillable à merci et miséricorde*) is composed of the individuals “liberated” by mechanical industry and improved agriculture. The manufactures of this class owed their origin chiefly to the capitalist’s need of having at hand an army ready equipped to meet any increase of demand.²⁶⁶ These manufactures, neverthe-

rinnen im Vereinigten Königreich (1861): 750 334. Die Zahl der gleichzeitig in Hut-, Schuh-, Handschuhmacherei und Schneiderei beschäftigten männlichen Arbeiter in England und Wales: 437 969, wovon 14 964 unter 15 Jahren, 89 285 fünfzehn- bis zwanzigjährig, 333 117 über 20 Jahren. Es fehlen in dieser Angabe viele hierher gehörige kleinere Zweige. Nehmen wir aber die Zahlen, wie sie stehn, so ergibt sich für England und Wales allein, nach dem Zensus von 1861, eine Summe von 1 024 267 Personen, also ungefähr so viel, wie Ackerbau und Viehzucht absorbieren. Man fängt an zu verstehen, wozu die Maschinerie so ungeheure Produktenmassen hervorzaubern und so ungeheure Arbeitermassen „freisetzen“ hilft.

²⁶⁴ Millinery bezieht sich eigentlich nur auf den Kopfputz, doch auch Damenmäntel und Mantillen, während Dressmakers mit unsren Putzmacherinnen identisch sind.

494:3/o Die Produktion des „Wearing Apparel“ wird betrieben durch Manufakturen, welche in ihrem Innern nur die Teilung der Arbeit reproduzierten, deren *membra disjecta* sie fertig vorfanden; durch kleinere Handwerksmeister, die aber nicht wie früher für individuelle Konsumenten, sondern für Manufakturen und Warenmagazine arbeiten, so daß oft ganze Städte und Landstriche solche Zweige, wie Schusterei usw., als Spezialität ausüben; endlich im größten Umfang durch sog. Hausarbeiter, welche das auswärtige Departement der Manufakturen, Warenmagazine und selbst der kleineren Meister bilden.²⁶⁵ Die Massen des Arbeitsstoffs, Rohstoffs, Halbfabrikate usw. liefert die große Industrie, die Masse des wohlfeilen Menschenmaterials (*taillable à merci et miséricorde*) besteht aus den durch die große Industrie und Agrikultur „Freigesetzten“. Die Manufakturen dieser Sphäre verdanken ihren Ursprung hauptsächlich dem Bedürfnis des Kapitalisten, eine jeder Bewegung der Nachfrage entsprechende schlagfertige Armee unter der

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less, allowed the scattered handicrafts and domestic industries to continue to exist as a broad foundation. The great production of surplus-value in these branches of labor, and the progressive cheapening of their articles, were and are chiefly due to the minimum wages paid, no more than requisite for a miserable vegetation, and to the extension of working-time up to the maximum endurable by the human organism. It was in fact by the cheapness of the human sweat and the human blood, which were converted into commodities, that the markets were constantly being extended, and continue daily to be extended; more especially was this the case with England's colonial markets, where, besides, English tastes and habits prevail. At last the critical point was reached. The basis of the old method, sheer brutality in the exploitation of the workpeople, accompanied more or less by a systematic division of labor, no longer sufficed for the extending markets and for the still more rapidly extending competition of the capitalists. The hour struck for the advent of machinery. The decisively revolutionary machine, the machine which attacks in an equal degree the whole of the numberless branches of this sphere of production, dressmaking, tailoring, shoemaking, sewing, hat-making, and many others, is the sewing-machine.

²⁶⁵ In England millinery and dressmaking are for the most part carried on, on the premises of the employer, partly by workwomen who live there, partly by women who live off the premises.

²⁶⁶ Mr. White, a commissioner, visited a military clothing manufactory that employed 1,000 to 1,200 persons, almost all females, and a shoe manufactory with 1,300 persons; of these nearly one half were children and young persons.

475:1–2 Its immediate effect on the workpeople is like that of all machinery, which, since the rise of modern industry, has seized upon new branches of trade. Children of too tender an age are sent adrift. The wage

Hand zu haben.²⁶⁶ Diese Manufakturen ließen jedoch neben sich den zerstreuten handwerksmäßigen und Hausbetrieb als breite Grundlage fortbestehn. Die große Produktion von Mehrwert in diesen Arbeitszweigen, zugleich mit der progressiven Verwohlfeilerung ihrer Artikel, war und ist hauptsächlich geschuldet dem Minimum des zu kümmerlicher Vegetation nötigen Arbeitslohns, verbunden mit dem Maximum menschenmöglicher Arbeitszeit. Es war eben die Wohlfeilheit des in Ware verwandelten Menschenschweißes und Menschenbluts, welche den Absatzmarkt beständig erweiterte und täglich erweitert, für England namentlich auch den Kolonialmarkt, wo überdem englische Gewohnheit und Geschmack vorherrschen. Endlich trat ein Knotenpunkt ein. Die Grundlage der alten Methode, bloß brutale Ausbeutung des Arbeitermaterials, mehr oder minder begleitet von systematisch entwickelter Arbeitsteilung, genügte dem wachsenden Markt und der noch rascher wachsenden Konkurrenz der Kapitalisten nicht länger. Die Stunde der Maschinerie schlug. Die entscheidend revolutionäre Maschine, welche die sämtlichen zahllosen Zweige dieser Produktionssphäre, wie Putzmacherei, Schneiderei, Schusterei, Näherei, Hutmacherei usw. gleichmäßig ergreift, ist—die Nähmaschine.

²⁶⁵ Die englische millinery und das dressmaking werden meist in den Baulichkeiten der Anwender, teils durch dort wohnhafte und engagierte Arbeiterinnen, teils durch auswärts wohnende Tagelöhnerinnen betrieben.

²⁶⁶ Kommissär White besuchte eine Manufaktur für Militärkleider, die 1000 bis 1200 Personen, fast alle weiblichen Geschlechts, beschäftigte, eine Schuhmanufaktur mit 1300 Personen, wovon beinahe die Hälfte Kinder und junge Personen usw. „Child. Empl. Comm., II. Rep.“, p. XLVII, n. 319.)

496:1–2 Ihre unmittelbare Wirkung auf die Arbeiter ist ungefähr die aller Maschinerie, welche in der Periode der großen Industrie neue Geschäftszweige erobert. Kinder im unreifsten Alter werden entfernt. Der

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of the machine hands rises compared with that of the house-workers, many of whom belong to the poorest of the poor. That of the better situated handicraftsman, with whom the machine competes, sinks. The new machine hands are exclusively girls and young women. With the help of mechanical force, they destroy the monopoly that male labor had of the heavier work, and they drive off from the lighter work numbers of old women and very young children. The overpowering competition crushes the weakest of the manual laborers. The fearful increase in death from starvation during the last 10 years in London runs parallel with the extension of machine sewing.²⁶⁷ The new workwomen turn the machines by hand and foot, or by hand alone, sometimes sitting, sometimes standing, according to the weight, size, and special make of the machine, and expend a great deal of labor-power. Their occupation is unwholesome, owing to the long hours, although in most cases they are not so long as under the old system. Wherever the sewing-machine locates itself in narrow and already over-crowded workrooms, it adds to the unwholesome influences.

Lohn der Maschinenarbeiter steigt verhältnismäßig zu dem der Hausarbeiter, wovon viele zu „den Ärmsten der Armen“ („the poorest of the poor“) gehören. Der Lohn der besser gestellten Handwerker, mit denen die Maschine konkurriert, sinkt. Die neuen Maschinenarbeiter sind ausschließlich Mädchen und junge Frauen. Mit Hilfe der mechanischen Kraft vernichten sie das Monopol der männlichen Arbeit in schwererem Werk und verjagen aus leichterem Massen alter Weiber und unreifer Kinder. Die übermächtige Konkurrenz erschlägt die schwächsten Handarbeiter. Das greuliche Wachstum des Hungertods (death from starvation) in London während des letzten Dezenniums läuft parallel mit der Ausdehnung der Maschinennäherei.²⁶⁷ Die neuen Arbeiterinnen der Nähmaschine, welche von ihnen mit Hand und Fuß oder mit der Hand allein, sitzend und stehend, je nach Schwere, Größe und Spezialität der Maschine, bewegt wird, verausgaben große Arbeitskraft. Ihre Beschäftigung wird gesundheitswidrig durch die Dauer des Prozesses, obgleich er meist kürzer als im alten System. Überall, wo die Nähmaschine, wie beim Schuh-, Korsett-, Hutmachen usw., ohnehin enge und überfüllte Werkstätten heimsucht, vermehrt sie die gesundheitswidrigen Einflüsse.

“The effect,” says Mr. Lord, “on entering low-ceiled workrooms in which 30 to 40 machine hands are working is unbearable . . . The heat, partly due to the gas stoves used for warming the irons, is horrible . . . Even when moderate hours of work, i.e., from 8 in the morning till 6 in the evening, prevail in such places, yet 3 or 4 persons fall into a swoon regularly every day.”²⁶⁸

„Die Wirkung“, sagt Kommissär Lord, „beim Eintritt in niedrig gestochne Arbeitslokale, wo 30 bis 40 Maschinenarbeiter zusammenwirken, ist unerträglich . . . Die Hitze, teilweise den Gasöfen zur Wärmung der Bügeleisen geschuldet, ist schrecklich . . . Wenn selbst in solchen Lokalen sog. mäßige Arbeitsstunden, d.h. von 8 Uhr morgens bis 6 Uhr abends, vorherrschen, fallen dennoch jeden Tag 3 oder 4 Personen regelmäßig in Ohnmacht.“²⁶⁸

²⁶⁷ An instance. The weekly report of deaths by the Registrar-General dated 26th Feb., 1864, contains 5 cases of death from starvation. On the same day *The Times* reports another case. Six victims of starvation in one week!

²⁶⁷ Ein Beispiel. Am 26. Februar 1864 enthält der wöchentliche Sterblichkeitsbericht des Registrar General 5 Fälle von Hungertod. Am selben Tag berichtet die „Times“ einen neuen Fall von Hungertod. Sechs Opfer des Hungertods in einer Woche!

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²⁶⁸ „Child. Empl. Comm., Second Rep., 1864,” p. lxxvii., n. 406–9, p. 84, n. 124, p. lxxiii, n. 441, p. 68, n. 6, p. 84, n. 126, p. 78, n. 85, p. 76, n. 69, p. lxxii, n. 483.

475:3/oo The revolution in the industrial methods which is the necessary result of the revolution in the instruments of production, is effected by a medley of transition forms. These forms vary according to the extent to which the sewing-machine has become prevalent in one branch, of industry or the other, to the time during which it has been in operation, to the previous condition of the workpeople, to the preponderance of manufacture, of handicrafts or of domestic industry, to the rent of the workrooms,²⁶⁹ etc. In dressmaking, for instance, where the labor for the most part was already organised, chiefly by simple co-operation, the sewing-machine at first formed merely a new factor in that manufacturing industry. In tailoring, shirtmaking, shoemaking, etc., all the forms are intermingled. Here the factory system proper. There middlemen receive the raw material from the capitalist *en chef*, and group around their sewing-machines, in “chambers” and “garrets,” from 10 to 50 or more workwomen. Finally, as is always the case with machinery when not organised into a system, and when it can also be used in dwarfish proportions, handicraftsman and domestic workers, along with their families, or with a little extra labor from without, make use of their own sewing-machines.²⁷⁰ The system actually prevalent in England is, that the capitalist concentrates a large number of machines on his premises, and then distributes the produce of those machines for further manipulation amongst the domestic workers.²⁷¹ The variety of the transition forms, however, does not conceal the tendency to conversion into the factory system proper. This tendency is nurtured by the very nature of the sewing-machine, the manifold uses of which push on the concentration, under one roof, and one management, of previously separated branches of a trade.

²⁶⁸ „Child. Empl. Comm., II. Rep.“, 1864, p. LXVII, n. 406–409; p. 84, n. 124; p. LXXIII, n. 441; p. 68, n. 6; p. 84, n. 126; p. 78, n. 85; p. 76, n. 69; p. LXXII, n. 438.

496:3/oo Die Umwälzung der gesellschaftlichen Betriebsweise, dies notwendige Produkt der Umwandlung des Produktionsmittels, vollzieht sich in einem bunten Wirrwarr von Übergangsformen. Sie wechseln mit dem Umfang, worin, und der Zeitlänge, während welcher die Nähmaschine den einen oder andren Industriezweig bereits ergriffen hat; mit der vorgefundenen Lage der Arbeiter, dem Übergewicht des Manufaktur-, Handwerks- oder Hausbetriebs, dem Mietpreis der Arbeitslokale²⁶⁹ usw. In der Putzmacherei z.B., wo die Arbeit meist schon organisiert war, hauptsächlich durch einfache Kooperation, bildet die Nähmaschine zunächst nur einen neuen Faktor des Manufakturbetriebs. In der Schneiderei, Hemdenmacherei, Schusterei usw. durchkreuzen sich alle Formen. Hier eigentlicher Fabrikbetrieb. Dort erhalten Zwischenanwender das Rohmaterial vom Kapitalisten *en chef* und gruppieren in „Kammern“ oder „Dachstuben“ 10 bis 50 und noch mehr Lohnarbeiter um Nähmaschinen. Endlich wie bei aller Maschinerie, die kein gegliedertes System bildet, und im Zwergformat anwendbar ist, benutzen Handwerker oder Hausarbeiter, mit eigener Familie oder Zuziehung weniger fremder Arbeiter, auch ihnen selbst gehörige Nähmaschinen.²⁷⁰ Tatsächlich überwiegt jetzt in England das System, daß der Kapitalist eine größere Maschinenanzahl in seinen Baulichkeiten konzentriert und dann das Maschinenprodukt zur weiteren Verarbeitung unter die Armee der Hausarbeiter verteilt.²⁷¹ Die Buntheit der Übergangsformen versteckt jedoch nicht die Tendenz zur Verwandlung in eingetlichen Fabrikbetrieb. Diese Tendenz wird genährt durch den Charakter der Nähmaschine selbst, deren mannigfaltige Anwendbarkeit zur Vereinigung früher getrennter Geschäftszweige in

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It is also favoured by the circumstance that preparatory needlework, and certain other operations, are most conveniently done on the premises where the machine is at work; as well as by the inevitable expropriation of the hand sewers, and of the domestic workers who work with their own machines. This fate has already in part overtaken them. The constantly increasing amount of capital invested in sewing-machines,²⁷² gives the spur to the production of, and gluts the markets with, machine-made articles, thereby giving the signal to the domestic workers for the sale of their machines. The overproduction of sewing-machines themselves, causes their producers, in bad want of a sale, to let them out for so much a week, thus crushing by their deadly competition the small owners of machines.²⁷³ Constant changes in the construction of the machines, and their ever-increasing cheapness, depreciate day by day the older makes, and allow of their being sold in great numbers, at absurd prices, to large capitalists, who alone can thus employ them at a profit. Finally, the substitution of the steam-engine for man gives in this, as in all similar revolutions, the finishing blow. At first, the use of steam power meets with mere technical difficulties, such as unsteadiness in the machines, difficulty in controlling their speed, rapid wear and tear of the lighter machines, etc., all of which are soon overcome by experience.²⁷⁴ If, on the one hand, the concentration of many machines in large manufactories leads to the use of steam power, on the other hand, the competition of steam with human muscles hastens on the concentration of workpeople and machines in large factories. Thus England is at present experiencing, not only in the colossal industry of making wearing apparel, but in most of the other trades mentioned above, the conversion of manufacture, of handicrafts, and of domestic work into the factory system, after each of those forms of production, totally changed and disorganised under the influence of modern industry, has long

derselben Baulichkeit und unter dem Kommando desselben Kapitals drängt; durch den Umstand, daß vorläufiges Nadelwerk und einige andre Operationen am geeignetsten am Sitz der Maschine verrichtet werden; endlich durch die unvermeidliche Expropriation der Handwerker und Hausarbeiter, die mit eignen Maschinen produzieren. Dies Fatum hat sie zum Teil schon jetzt erreicht. Die stets wachsende Masse des in Nähmaschinen angelegten Kapitals²⁷² spornt die Produktion und erzeugt Marktstockungen, welche das Signal zum Verkauf der Nähmaschinen durch die Hausarbeiter läuten. Die Überproduktion von solchen Maschinen selbst zwingt ihre absatzbedürftigen Produzenten, sie auf wöchentliche Miete zu verleihen, und schafft damit eine für die kleinen Maschineneigner tödliche Konkurrenz.²⁷³ Stets noch fortdauernde Konstruktionswechsel und Verwohlfeilerung der Maschinen deprezieren ebenso beständig ihre alten Exemplare und lassen sie nur noch massenhaft, zu Spottpreisen gekauft, in der Hand großer Kapitalisten, profitlich anwenden. Endlich gibt die Substitution der Dampfmaschine für den Menschen, hier wie in allen ähnlichen Umwälzungsprozessen, den Ausschlag. Die Anwendung der Dampfkraft stößt im Anfang auf rein technische Hindernisse, wie Schütteln der Maschinen, Schwierigkeit in der Beherrschung ihrer Geschwindigkeit, raschen Verderb der leichtern Maschinen usw., lauter Hindernisse, welche die Erfahrung bald überwinden lehrt.²⁷⁴ Wenn einerseits die Konzentration vieler Arbeitsmaschinen in größeren Manufakturen zur Anwendung der Dampfkraft treibt, beschleunigt andererseits die Konkurrenz des Dampfes mit Menschenmuskeln Konzentration von Arbeitern und Arbeitsmaschinen in großen Fabriken. So erlebt England gegenwärtig in der kolossalen Produktionssphäre des „Wearing Apparel“, wie in den meisten übrigen Gewerken, die Umwälzung der Manufaktur, des Handwerks und der Hausarbeit in Fabrikbetrieb,

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ago reproduced, and even overdone, all the horrors of the factory system, without participating in any of the elements of social progress it contains.²⁷⁵

²⁶⁹ "The rental of premises required for work-rooms seems the element which ultimately determines the point; and consequently it is in the metropolis, that the old system of giving work out to small employers and families has been longest retained, and earliest returned to." (l.c., p. 83, n. 123.) The concluding statement in this quotation refers exclusively to shoemaking.

²⁷⁰ In glove-making and other industries where the condition of the work-people is hardly distinguishable from that of paupers, this does not occur.

²⁷¹ l.c., p. 83, n. 122.

²⁷² In the wholesale boot and shoe trade of Leicester alone, there were in 1864, 800 sewing-machines already in use.

²⁷³ l.c., p. 84, n. 124.

²⁷⁴ Instances: The Army Clothing Depot at Pimlico, London, the Shirt factory of Tillie and Henderson at Londonderry, and the clothes factory of Messrs. Tait at Limerick which employs about 1,200 hands.

²⁷⁵ "Tendency to Factory System" (l.c., p. lxxvii). "The whole employment is at this time in a state of transition, and is undergoing the same Change as that effected in the lace trade, weaving, etc." (l.c., n. 405.) "A complete revolution" (l.c., p. xlvi., n. 318). At the date of the Child. Empl. Comm. of 1840 stocking making was still done by manual labor. Since 1846 various sorts of machines have been introduced, which are now driven by steam. The total number of persons of both sexes and of all ages from 3 years upwards, employed in stocking making in England, was in 1862 about 129,000. Of these only 4,063 were, according to the Parliamentary Return of the 11th February, 1862, working under the Factory Acts.

End of subsection e) (which is at the same time end of section 8): Extension of factory acts to industries where machinery is not yet introduced.

477:1/o This industrial revolution which takes place spontaneously, is artificially

nachdem alle jene Formen, unter dem Einfluß der großen Industrie gänzlich verändert, zersetzt, entstellt, bereits längst alle Ungeheuerlichkeiten des Fabriksystems ohne seine positiven Entwicklungsmomente reproduziert und selbst übertrieben hatten.²⁷⁵

²⁶⁹ „Der Mietpreis der Arbeitslokale scheint der Faktor zu sein, der schließlich den Ausschlag gibt, und folglich hat sich in der Hauptstadt das alte System, Arbeit an kleine Unternehmer und Familien auszugeben, am längsten erhalten und ist am ehesten wieder aufgenommen worden.“ (l.c. p. 83, n. 123.) Der Schlußsatz bezieht sich ausschließlich auf Schusterei.

²⁷⁰ In der Handschuhmacherei usw., wo die Lage der Arbeiter von der der Paupers kaum unterscheidbar, kommt dies nicht vor.

²⁷¹ l.c. p. 83, n. 122.

²⁷² In der für den Großverkauf produzierenden Stiefel- und Schuhmacherei von Leicester allein waren 1864 bereits 800 Nähmaschinen im Gebrauch.

²⁷³ l.c. p. 84, n. 124.

²⁷⁴ So im Armee-Kleidungsdepot zu Pimlico, London, in der Hemdenfabrik von Tillie und Henderson zu Londonderry, in der Kleiderfabrik der Firma Tait zu Limerick, die an 1200 „Hände“ vernutzt.

²⁷⁵ „Die Tendenz zum Fabrikssystem.“ (l.c. p. LXVII.) „Das ganze Gewerbe befindet sich jetzt in einem Übergangsstadium und macht die gleichen Veränderungen durch, die auch die Spitzenindustrie, die Weberei usw., durchgemacht haben.“ (l.c., n. 405.) „Eine völlige Revolution.“ (l.c. p. XLVI, n. 318.) Zur Zeit der „Child. Empl. Comm.“ von 1840 war die Strumpfwirkerei noch Handarbeit. Seit 1846 wurde verschiedenartige Maschinerie eingeführt, jetzt durch Dampf getrieben. Die Gesamtzahl der in der englischen Strumpfwirkerei beschäftigten Personen beiderlei Geschlechts und aller Altersstufen vom 3. Jahr an betrug 1862 ungefähr 120 000 Personen. Davon, nach Parliamentary Return vom 11. Februar, 1862 doch nur 4063 unter der Botmäßigkeit des Fabrikakts.

498:1/o Diese naturwüchsig vorgehende industrielle Revolution wird künstlich be-

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helped on by the extension of the Factory Acts to all industries in which women, young persons and children are employed. The compulsory regulation of the working-day as regards its length, pauses, beginning and end, the system of relays of children, the exclusion of all children under a certain age, etc., necessitate on the one hand more machinery²⁷⁶ and the substitution of steam as a motive power in the place of muscles.²⁷⁷ On the other hand, in order to make up for the loss of time, an expansion occurs of the means of production used in common, of the furnaces, buildings, etc., in one word, greater concentration of the means of production and a correspondingly greater concourse of workpeople. The chief objection, repeatedly and passionately urged on behalf of each manufacture threatened with the Factory Act, is in fact this, that in order to continue the business on the old scale a greater outlay of capital will be necessary. But as regards labor in the so-called domestic industries and the intermediate forms between them and Manufacture, so soon as limits are put to the working-day and to the employment of children, those industries go to the wall. Unlimited exploitation of cheap labor-power is the sole foundation of their power to compete.

²⁷⁶ Thus, e.g., in the earthenware trade, Messrs. Cochrane, of the Britain Pottery, Glasgow, report: "To keep up our quantity we have gone extensively into machines wrought by unskilled labor, and every day convinces us that we can produce a greater quantity than by the old method." ("Rep. of Insp. of Fact., 31st Oct., 1865," p. 13.) "The effect of the Fact. Acts is to force on the further introduction of machinery" (l.c., pp. 13–14).

²⁷⁷ Thus, after the extension of the Factory Act to the potteries, great increase of powerjiggers in place of hand-moved jiggers.

478:1–479:1 One of the essential conditions for the existence of the factory system, especially when the length of the working-day is fixed, is certainty in the result, i.e., the

schleunigt durch die Ausdehnung der Fabrikgesetze auf alle Industriezweige, worin Weiber, junge Personen und Kinder arbeiten. Die zwangsmäßige Regulation des Arbeitstags nach Länge, Pausen, Anfangs- und Endpunkt, das System der Ablösung für Kinder, der Ausschluß aller Kinder unter einem gewissen Alter usw. erfordern einerseits vermehrte Maschinerie²⁷⁶ und Ersatz von Muskeln durch Dampf als Triebkraft.²⁷⁷ Andererseits, um im Raum zu gewinnen, was in der Zeit verlorengelassen, findet Streckung der gemeinschaftlich vernutzten Produktionsmittel statt, der Öfen, Baulichkeiten usw., also in einem Wort größere Konzentration der Produktionsmittel und entsprechende größere Konglomeration von Arbeitern. Der leidenschaftlich wiederholte Haupteinwand jeder mit dem Fabrikgesetz bedrohten Manufaktur ist in der Tat die Notwendigkeit größerer Kapitalauslage, um das Geschäft in seinem alten Umfang fortzuführen. Was aber die Zwischenformen zwischen Manufaktur und Hausarbeit und letztere selbst betrifft, so versinkt ihr Boden mit der Schranke des Arbeitstags und der Kinderarbeit. Schrankenlose Ausbeutung wohlfeiler Arbeitskräfte bildet die einzige Grundlage ihrer Konkurrenzfähigkeit.

²⁷⁶ So z.B. in der Töpferei berichtet die Firma Cochran von der „Britannia Pottery, Glasgow“: „Um unsere Produktionshöhe aufrechtzuerhalten, verwenden wir jetzt in weitem Umfang Maschinen, die von ungelernten Arbeitern bedient werden, und jeder Tag überzeugt uns, daß wir eine größere Menge herstellen können als nach dem alten Verfahren.“ „Reports of Insp. of Fact., 31st Oct. 1865“, p. 13.) „Die Wirkung des Fabrikakts ist, zu weiterer Einführung von Maschinerie zu treiben.“ (l.c. p. 13, 14.)

²⁷⁷ So nach Einführung des Fabrikakts in die Töpferei große Zunahme der power jiggers statt der handmoved jiggers.

499:1–500:1 Wesentliche Bedingung des Fabrikbetriebs, namentlich sobald er der Regulation des Arbeitstags unterliegt, ist normale Sicherheit des Resultats, d.h. Pro-

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production in a given time of a given quantity of commodities, or of a given useful effect. The statutory pauses in the working-day, moreover, imply the assumption that periodical and sudden cessation of the work does no harm to the article undergoing the process of production. This certainty in the result, and this possibility of interrupting the work are, of course, easier to be attained in the purely mechanical industries than in those in which chemical and physical processes play a part; as, for instance, in the earthenware trade, in bleaching, dyeing, baking, and in most of the metal industries. Wherever there is a workingday without restriction as to length, wherever there is night-work and unrestricted waste of human life, there the slightest obstacle presented by the nature of the work to a change for the better is soon looked upon as an everlasting barrier erected by Nature. No poison kills vermin with more certainty than the Factory Act removes such everlasting barriers. No one made a greater outcry over "impossibilities" than our friends the earthenware manufacturers. In 1864, however, they were brought under the Act, and within sixteen months every "impossibility" had vanished.

"The improved method," called forth by the Act, "of making slip by pressure instead of by evaporation, the newly-constructed stoves for drying the ware in its green state, etc., are each events of great importance in the pottery art, and mark an advance which the preceding century could not rival ... It has even considerably reduced the temperature of the stoves themselves with a considerable saving of fuel, and with a readier effect on the ware."²⁷⁸

²⁷⁸ "Report of Insp. of Fact., 31st Oct., 1865," pp. 96 and 127.

In spite of every prophecy, the cost-price of earthenware did not rise, but the quantity produced did, and to such an extent that the export for the twelve months, ending December, 1865, exceeded in value by £138,628 the average of the preceding three years. In the manufacture of matches it

produktion eines bestimmten Quantums Ware oder eines bezweckten Nutzeffekts in gegebenem Zeitraum. Die gesetzlichen Pausen des regulierten Arbeitstags unterstellen ferner plötzlichen und periodischen Stillstand der Arbeit ohne Schaden für das im Produktionsprozeß befindliche Machwerk. Diese Sicherheit des Resultats und Unterbrechungsfähigkeit der Arbeit sind natürlich in rein mechanischen Gewerken leichter erzielbar als dort, wo chemische und physikalische Prozesse eine Rolle spielen, wie z.B. in Töpferei, Bleicherei, Färberei, Bäckerei, den meisten Metallmanufakturen. Mit dem Schlendrian des unbeschränkten Arbeitstags, der Nachtarbeit und freier Menschenverwüstung gilt jedes naturwüchsige Hindernis bald für eine ewige „Naturschranke“ der Produktion. Kein Gift vertilgt Ungeziefer sicherer als das Fabrikgesetz solche „Naturschranken“. Niemand schrie lauter über „Unmöglichkeiten“ als die Herren von der Töpferei. 1864 wurde ihnen das Fabrikgesetz oktroyiert, und alle Unmöglichkeiten waren schon 16 Monate später verschwunden. Die durch das Fabrikgesetz hervorgerufene

„verbesserte Methode, Töpferbrei (slip) durch Druck statt durch Verdunstung zu machen, die neue Konstruktion der Öfen zum Trocknen der ungebrannten Ware usw. sind Ereignisse von großer Wichtigkeit in der Kunst der Töpferei und bezeichnen einen Fortschritt derselben, wie ihn das letzte Jahrhundert nicht aufweisen kann ... Die Temperatur der Öfen ist beträchtlich vermindert, bei beträchtlicher Abnahme im Kohlenkonsum und rascher Wirkung auf die Ware.“²⁷⁸

²⁷⁸ „Rep. Insp. Fact., 31st Oct. 1865“, p. 96 und 127.

500:2–3 Trotz aller Prophezeiung stieg nicht der Kostenpreis des Erdenguts, wohl aber die Produktenmasse, so daß die Ausfuhr der 12 Monate von Dezember 1864 bis Dezember 1865 einen Wertüberschuß von 138 628 Pfd.St. über den Durchschnitt der drei vorigen Jahre ergab. In der Fa-

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was thought to be an indispensable requirement, that boys, even while bolting their dinner, should go on dipping the matches in melted phosphorus, the poisonous vapour from which rose into their faces. The Factory Act (1864) made the saving of time a necessity, and so forced into existence a dipping machine, the vapour from which could not come in contact with the workers.²⁷⁹ So, at the present time, in those branches of the lace manufacture not yet subject to the Factory Act, it is maintained that the meal-times cannot be regular owing to the different periods required by the various kinds of lace for drying, which periods vary from three minutes up to an hour and more. To this the Children's Employment Commissioners answer:

“The circumstances of this case are precisely analogous to that of the paper-stainers, dealt with in our first report. Some of the principal manufacturers in the trade urged that in consequence of the nature of the materials used, and their various processes, they would be unable, without serious loss, to stop for meal-times at any given moment. But it was seen from the evidence that, by due care and previous arrangement, the apprehended difficulty would be got over; and accordingly, by clause 6 of section 6 of the Factory Acts Extension Act, passed during this Session of Parliament, an interval of eighteen months is given to them from the passing of the Act before they are required to conform to the meal hours, specified by the Factory Acts.”²⁸⁰

²⁷⁹ The introduction of this and other machinery into match-making caused in one department alone 230 young persons to be replaced by 32 boys and girls of 14 to 17 years of age. This saving in labor was carried still further in 1865, by the employment of steam power.

²⁸⁰ “Ch. Empl. Comm., 11. Rep., 1864,” p. ix., n. 50.

Hardly had the Act been passed when our friends the manufacturers found out:

“The inconveniences we expected to arise

brikation von Zündhölzern galt es als Naturgesetz, daß Jungen, selbst während der Herunterwürgung ihres Mittagmahls, die Hölzer in eine warme Phosphorkomposition tunkten, deren giftiger Dampf ihnen in das Gesicht stieg. Mit der Notwendigkeit, Zeit zu ökonomisieren, erzwang der Fabrikakt (1864) eine „dipping machine“ (Eintauchungsmaschine), deren Dämpfe den Arbeiter nicht erreichen können.²⁷⁹ So wird jetzt in den noch nicht dem Fabrikgesetz unterworfenen Zweigen der Spitzenmanufaktur behauptet, die Mahlzeiten können nicht regelmäßig sein, wegen der verschiedenen Zeitlängen, die verschiedene Spitzenmaterialien zur Trocknung brauchen, und die von 3 Minuten auf eine Stunde und mehr variieren. Hierauf antworten die Kommissäre der „Children's Employment Comm.“:

„Die Umstände sind dieselben wie in der Tapetendruckerei. Einige der Hauptfabrikanten in diesem Zweig machten lebhaft geltend, die Natur der verwandten Materialien und die Verschiedenartigkeit der Prozesse, die sie durchlaufen, erlaubten ohne großen Verlust keine plötzliche Stillsetzung der Arbeit für Mahlzeiten ... Durch die 6. Klausel der 6. Sektion des Factory Acts Extension Act“ (1864) „ward ihnen eine achtzehnmonatliche Frist vom Erlassungsdatum des Akts an eingeräumt, nach deren Ablauf sie sich den durch den Fabrikakt spezifizierten Erfrischungspausen fügen mußten.“²⁸⁰

²⁷⁹ Die Einführung dieser und anderer Maschinerie in die Zündholzfabrik hat in einem Departement derselben 230 junge Personen durch 32 Jungen und Mädchen von 14 bis 17 Jahren ersetzt. Diese Ersparung von Arbeitern wurde 1865 weitergeführt durch Anwendung der Dampfkraft.

²⁸⁰ „Child. Empl. Comm., II. Rep.“, 1864, p. IX, n. 50.

501:1–2 Kaum hatte das Gesetz parlamentarische Sanktion erhalten, als die Herrn Fabrikanten auch entdeckten:

„Die Mißstände, die wir von der Einführung

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from the introduction of the Factory Acts into our branch of manufacture, I am happy to say, have not arisen. We do not find the production at all interfered with; in short, we produce more in the same time.”²⁸¹

²⁸¹ “Rep. of Insp. of Fact., 31st Oct., 1865,” p. 22.

It is evident that the English legislature, which certainly no one will venture to reproach with being overdosed with genius, has been led by experience to the conclusion that a simple compulsory law is sufficient to enact away all the so-called impediments, opposed by the nature of the process, to the restriction and regulation of the working-day. Hence, on the introduction of the Factory Act into a given industry, a period varying from six to eighteen months is fixed within which it is incumbent on the manufacturers to remove all technical impediments to the working of the Act. Mirabeau’s “Impossible! ne me dites jamais ce bête de mot!” is particularly applicable to modern technology. But though the Factory Acts thus artificially ripen the material elements necessary for the conversion of the manufacturing system into the factory system, yet at the same time, owing to the necessity they impose for greater outlay of capital, they hasten on the decline of the small masters, and the concentration of capital.²⁸²

²⁸² “But it must be borne in mind that those improvements, though carried out fully in some establishments, are by no means general, and are not capable of being brought into use in many of the old manufactories without an expenditure of capital beyond the means of many of the present occupiers.” “I cannot but rejoice,” writes Sub-Insp. May, “that notwithstanding the temporary disorganisation which inevitably follows the introduction of such a measure (as the Factory Act Extension Act), and is, indeed, directly indicative of the evils which it was intended to remedy, etc.” (Rep. of Insp. of Fact., 31st Oct., 1865.)

480:2–481:1 Besides the purely technical impediments that are removable by technical means, the irregular habits of the

des Fabrikgesetzes erwarteten, sind nicht eingetreten. Wir finden nicht, daß die Produktion irgendwie gelähmt ist. In der Tat, wir produzieren mehr in derselben Zeit.“²⁸¹

²⁸¹ „Reports of Insp. of Fact., 31st Oct. 1865“, p. 22.

501:3 Man sieht, das englische Parlament, dem sicher niemand Genialität vorwerfen wird, ist durch Erfahrung zur Einsicht gelangt, daß ein Zwangsgesetz alle sog. Naturhindernisse der Produktion gegen Beschränkung und Regelung des Arbeitstags einfach wegdiktieren kann. Bei Einführung des Fabrikakts in einem Industriezweig wird daher ein Termin von 6 bis 18 Monaten gestellt, innerhalb dessen es Sache des Fabrikanten ist, die technischen Hindernisse wegzuräumen. Mirabeaus „Impossible? Ne me dites jamais ce bête de mot!“ gilt namentlich für die moderne Technologie. Wenn aber das Fabrikgesetz so die zur Verwandlung des Manufakturbetriebs in Fabrikbetrieb notwendigen materiellen Elemente treibhausmäßig reift, beschleunigt es zugleich durch die Notwendigkeit vergrößerter Kapitalauslage den Untergang der kleineren Meister und die Konzentration des Kapitals.²⁸²

²⁸² „Die nötigen Verbesserungen ... können in vielen alten Manufakturen nicht eingeführt werden, ohne Kapitalauslage über die Mittel vieler gegenwärtiger Besitzer ... Eine vorübergehende Desorganisation begleitet notwendig die Einführung der Fabrikakte. Der Umfang dieser Desorganisation steht in direktem Verhältnis zur Größe der zu heilenden Mißstände.“ (l.c. p. 96, 97.)

501:4–502:1 Abgesehen von den rein technischen und technisch beseitbaren Hindernissen stößt die Regulation des Arbeitstags

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workpeople themselves obstruct the regulation of the hours of labor. This is especially the case where piece-wage predominates, and where loss of time in one part of the day or week can be made good by subsequent over-time, or by night-work, a process which brutalises the adult workman, and ruins his wife and children.²⁸³ Although this absence of regularity in the expenditure of labor-power is a natural and rude reaction against the tedium of monotonous drudgery, it originates, also, to a much greater degree from anarchy in production, anarchy that in its turn pre-supposes unbridled exploitation of labor-power by the capitalist. Besides the general periodic changes of the industrial cycle, and the special fluctuations in the markets to which each industry is subject, we may also reckon what is called "the season," dependent either on the periodicity of favourable seasons of the year for navigation; or on fashion, and the sudden placing of large orders that have to be executed in the shortest possible time. The habit of giving such orders becomes more frequent with the extension of railways and telegraphs.

"The extension of the railway system throughout the country has tended very much to encourage giving short notice. Purchasers now come up from Glasgow, Manchester, and Edinburgh once every fortnight or so to the wholesale city warehouses which we supply, and give small orders requiring immediate execution, instead of buying from stock as they used to do. Years ago we were always able to work in the slack times, so as to meet demand of the next season, but now no one can say beforehand what will be the demand then."²⁸⁴

²⁸³ With blast furnaces, for instance, "work towards the end of the week being generally much increased in duration in consequence of the habit of the men of idling on Monday and occasionally during a part or the whole of Tuesday also." ("Child. Empl. Comm., III. Rep.," p. vi.) "The little masters generally have very irregular hours. They lose two or three days, and then work all night to make it up... They always employ their

auf unregelmäßige Gewohnheiten der Arbeiter selbst, namentlich wo Stücklohn vorherrscht und Verbummlung der Zeit in einem Tages- oder Wochenabschnitt durch nachträgliche Überarbeit oder Nacharbeit gutgemacht werden kann, eine Methode, die den erwachsenen Arbeiter brutalisiert, seine unreifen und weiblichen Genossen ruiniert.²⁸³ Obgleich diese Regellosigkeit in Verausgabung der Arbeitskraft eine naturwüchsige rohe Reaktion gegen die Langweile monotoner Arbeitsplackerei ist, entspringt sie jedoch in ungleich höherem Grad aus der Anarchie der Produktion selbst, die ihrerseits wieder ungezügelter Exploitation der Arbeitskraft durch das Kapital voraussetzt. Neben die allgemeinen periodischen Wechselfälle des industriellen Zyklus und die besondern Marktschwankungen in jedem Produktionszweig treten namentlich die sog. Saison, beruhe sie nun auf Periodizität der Schifffahrt günstiger Jahreszeiten oder auf der Mode, und die Plötzlichkeit großer und in kürzester Frist auszuführender Ordres. Die Gewohnheit der letztern dehnt sich mit Eisenbahnen und Telegraphie aus.

„Die Audehnung des Eisenbahnsystems“, sagt z.B. ein Londoner Fabrikant „durch das ganze Land hat die Gewohnheit kurzer Ordres sehr gefördert. Käufer kommen jetzt von Glasgow, Manchester und Edinburgh einmal in 14 Tagen oder für den Engroskauf zu den City-Warenhäusern, denen wir die Waren liefern. Sie geben Ordres, die unmittelbar ausgeführt werden müssen, statt vom Lager zu kaufen, wie es Gewohnheit war. In früheren Jahren waren wir stets fähig, während der schlaffen Zeit für die Nachfrage der nächsten Saison vorzuarbeiten, aber jetzt kann niemand vorhersagen, was dann in Nachfrage sein wird.“²⁸⁴

²⁸³ In den Hochöfen z.B. „wird die Arbeitszeit gegen Ende der Woche im allgemeinen stark ausgedehnt, infolge der Gewohnheit der Arbeiter, am Montag und gelegentlich, teilweise oder ganz, auch am Dienstag zu feiern“. („Child. Empl. Comm., III. Rep.“, p. VI.) „Die kleinen Meister haben im allgemeinen eine sehr unregelmäßige Arbeitszeit. Sie verlieren 2 oder 3 Tage, und dann arbeiten sie die ganze Nacht, um

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own children, if they have any.” (l.c., p. vii.) “The want of regularity in coming to work, encouraged by the possibility and practice of making up for this by working longer hours.” (l.c., p. xviii.) “In Birmingham ... an enormous amount of time is lost ... idling part of the time, slaving the rest.” (l.c., p. xi.)

²⁸⁴ “Child. Empl. Comm., IV., Rep.,” p. xxxii., “The extension of the railway system is said to have contributed greatly to this custom of giving sudden orders, and the consequent hurry, neglect of meal-times, and late hours of the workpeople.” (l.c., p. xxxi.)

481:2–482:0 In those factories and manufactories that are not yet subject to the Factory Acts, the most fearful over-work prevails periodically during what is called the season, in consequence of sudden orders. In the outside department of the factory, of the manufactory, and of the warehouse, the so-called domestic workers, whose employment is at the best irregular, are entirely dependent for their raw material and their orders on the caprice of the capitalist, who, in this industry, is not hampered by any regard for depreciation of his buildings and machinery, and risks nothing by a stoppage of work, but the skin of the worker himself. Here then he sets himself systematically to work to form an industrial reserve force that shall be ready at a moment’s notice; during one part of the year he decimates this force by the most inhuman toil, during the other part, he lets it starve for want of work.

“The employers avail themselves of the habitual irregularity in the homework, when any extra work is wanted at a push, so that the work goes on till 11, and 12 p.m. or 2 a.m., or as the usual phrase is, “all hours,” and that in localities where “the stench is enough to knock you down, you go to the door, perhaps, and open it, but shudder to go further.”²⁸⁵ “They are curious men,” said one of the witnesses, a shoemaker, speaking of the masters, “they think it does a boy no harm to work too hard for half the year, if he is nearly idle for

den Verlust aufzuholen ... Sie beschäftigen immer ihre eignen Kinder, wenn sie welche haben.“ (l.c. p. VII.) „Der Mangel an Regelmäßigkeit beim Arbeitsanfang, der durch die Möglichkeit und die Übung, durch Überarbeit den Verlust einzuholen, gefördert wird.“ (l.c. p. XVIII.) „Ungeheurer Zeitverlust in Birmingham ... indem sie einen Teil der Zeit bummeln und in der restlichen Zeit sich abschulten.“ (l.c. p. XI.)

²⁸⁴ „Child. Empl. Comm., IV. Rep.“, p. XX-XII. „Die Ausdehnung des Eisenbahnsystems soll diese Gewohnheit, plötzliche Ordres zu erteilen, sehr gefördert haben; für die Arbeiter ergeben sich daraus Hetztempo, Vernachlässigung der Essenszeiten und Überstunden.“ (l.c. p. XX-XI.)

502:3–503:0 In den noch nicht dem Fabrikgesetz unterworfenen Fabriken und Manufakturen herrscht periodisch die furchtbarste Überarbeit während der sog. Saison, stoßweis infolge plötzlicher Ordres. Im auswärtigen Departement der Fabrik, der Manufaktur und des Warenmagazins, in der Sphäre der Hausarbeit, ohnehin durchaus unregelmäßig, für ihr Rohmaterial und ihre Ordres ganz abhängig von den Launen des Kapitalisten, den hier keine Rücksicht auf Verwertung von Baulichkeiten, Maschinen usw. bindet und der hier nichts riskiert als die Haut der Arbeiter selbst, wird so systematisch eine stets disponible, industrielle Reservearmee großgezüchtet, dezimiert während eines Teils des Jahrs durch unmenschlichsten Arbeitszwang, während des andren Teils verlumpt durch Arbeitsmangel.

„Die Anwender“, sagt die „Child. Empl. Comm.“, „exploitieren die gewohnheitsmäßige Unregelmäßigkeit der Hausarbeit, um sie in Zeiten, wo Extrawerk nötig, bis 11, 12, 2 Uhr nachts, in der Tat, wie die stehende Phrase lautet, auf alle Stunden hinaufzupforcieren“, und dies in Lokalen, „wo der Gestank hinreicht, euch niederzuschmettern (the stench is enough to knock you down). Ihr geht vielleicht bis an die Tür und öffnet sie, aber schaudert zurück von weitem Vorgehn.“²⁸⁵ „Es sind komische Käuze, unsre Anwender“, sagt einer der

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the other half.”²⁸⁶

²⁸⁵ “Ch. Empl. Comm. IV. Rep.,” pp. xxxv., n. 235, 237.

²⁸⁶ “Ch. Empl. Comm. IV. Rep.,” p. 127, n. 56.

482:1/o In the same way as technical impediments, so, too, those “usages which have grown with the growth of trade” were and still are proclaimed by interested capitalists as obstacles due to the nature of the work. This was a favourite cry of the cotton lords at the time they were first threatened with the Factory Acts. Although their industry more than any other depends on navigation, yet experience has given them the lie. Since then, every pretended obstruction to business has been treated by the Factory inspectors as a mere sham.²⁸⁷ The thoroughly conscientious investigations of the Children’s Employment Commission prove that the effect of the regulation of the hours of work, in some industries, was to spread the mass of labor previously employed more evenly over the whole year²⁸⁸ that this regulation was the first rational bridle on the murderous, meaningless caprices of fashion,²⁸⁹ caprices that consort so badly with the system of modern industry; that the development of ocean navigation and of the means of communication generally, has swept away the technical basis on which season-work was really supported,²⁹⁰ and that all other so-called unconquerable difficulties vanish before larger buildings, additional machinery, increase in the number of workpeople employed,²⁹¹ and the alterations caused by all these in the mode of conducting the wholesale trade.²⁹² But for all that, capital never becomes reconciled to such changes—and this is admitted over and over again by its own representatives—except “under the pressure of a General Act of Parliament”²⁹³ for the compulsory regu-

verhörten Zeugen, ein Schuster, „sie glauben, es tue einem Jungen keinen Harm, wenn er während eines halben Jahrs totgerackert und während der andren Hälfte fast gezwungen wird, herumzuludern.“²⁸⁶

²⁸⁵ „Child. Empl. Comm., IV. Rep.“, p. XXXV, n. 235 und 237.

²⁸⁶ I.c. p. 127, n. 56.

503:1/o Wie die technischen Hindernisse, so wurden und werden diese sog. „Geschäftsgewohnheiten“ („usages which have grown with the growth of trade“) von interessierten Kapitalisten als „Naturschranken“ der Produktion behauptet, ein Lieblingsschrei der Baumwoll-Lords zur Zeit, als das Fabrikgesetz sie zuerst bedrohte. Obgleich ihre Industrie mehr als jede andere auf dem Weltmarkt und daher der Schifffahrt beruht, strafte die Erfahrung sie Lügen. Seitdem wird jedes angebliche „Geschäftshindernis“ von den englische Fabrikinspektoren als hohle Flause behandelt.²⁸⁷ Die gründlich gewissenhaften Untersuchungen der „Child. Empl. Comm.“ beweisen in der Tat, daß in einigen Industrien die bereits angewandte Arbeitsmasse nur gleichmäßiger über das ganze Jahr verteilt würde durch die Regulation des Arbeitstags,²⁸⁸ daß letztere der erste rationelle Zügel für die menschenmörderischen, inhaltlosen und an sich dem System der großen Industrie unangemeßnen Flatterlaunen der Mode,²⁸⁹ daß die Entwicklung der ozeanische Schifffahrt und der Kommunikationsmittel überhaupt den eigentlich technischen Grund der Saisonarbeit aufgehoben hat,²⁹⁰ daß alle andren angeblich unkontrollierbaren Umstände weggeräumt werden durch weitere Baulichkeiten, zusätzliche Maschinerie, vermehrte Anzahl der gleichzeitig beschäftigten Arbeiter²⁹¹ und von selbst folgenden Rückschlag auf das System des Großhandels.²⁹² Jedoch versteht sich das Kapital, wie es wiederholt durch den Mund seiner Repräsentanten erklärt, zu solcher Umwälzung „nur unter dem Druck eines allgemeinen Parla-

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lation of the hours of labor.

²⁸⁷ With respect to the loss of trade by non-completion of shipping orders in time, I remember that this was the pet argument of the factory masters in 1832 and 1833. Nothing that can be advanced now on this subject, could have the force that it had then, before steam had halved all distances and established new regulations for transit. It quite failed at that time of proof when put to the test, and again it will certainly fail should it have to be tried." ("Reports of Insp. of Fact., 31 Oct., 1862," pp. 54, 55.)

²⁸⁸ "Ch. Empl. Comm. IV. Rep.," p. xviii, n. 118.

²⁸⁹ John Bellers remarked as far back as 1699: "The uncertainty of fashions does increase necessitous poor. It has two great mischiefs in it. 1st, The journeymen are miserable in winter for want of work, the mercers and master-weavers not daring to lay out their stocks to keep the journeymen employed before the spring comes, and they know what the fashion will then be; 2ndly, In the spring the journeymen are not sufficient, but the master-weavers must draw in many prentices, that they may supply the trade of the kingdom in a quarter or half a year, which robs the plough of hands, drains the country of laborers, and in a great part stocks the city with beggars, and starves some in winter that are ashamed to beg." ("Essays about the Poor, Manufactures, etc.," p. 9.)

²⁹⁰ "Ch. Empl. Comm. V. Rep.," p. 171, n. 34.

²⁹¹ The evidence of some Bradford export-houses is as follows: "Under these circumstances, it seems clear that no boys need be worked longer than from 8 a.m. to 7 or 7.30 p.m., in making up. It is merely a question of extra hands and extra outlay. If some masters were not so greedy, the boys would not work late; an extra machine costs only £16 or £18; much of such over-time as does occur is to be referred to an insufficiency of appliances, and a want of space." "Ch. Empl. Comm. V. Rep.," p. 171, n. 35, 36, 38.

mentsakts"²⁹³, der den Arbeitstag zwangsgesetzlich reguliert.

²⁸⁷ „Was den Verlust anbelangt, der dem Handel durch nicht rechtzeitiges Erfüllen der Ordres zur Verschiffung entsteht, so erinnere ich mich, daß dies das Lieblingsargument der Fabrikherren 1832 war. Nichts, was jetzt zu diesem Gegenstand angeführt werden kann, könnte soviel Gewicht haben wie damals, als der Dampf noch nicht alle Entfernungen halbiert und neue Regelungen des Verkehrs eingeführt hatte. Diese Behauptung erwies sich damals, als wirklich die Probe aufs Exempel gemacht wurde, als nicht stichhaltig und würde gewiß auch jetzt einer Nachprüfung nicht standhalten.“ „Reports of Insp. of Fact., 31st Oct. 1862“, p. 54, 44.)

²⁸⁸ „Child. Empl. Comm., III. Rep.“, p. XVIII, n. 118.

²⁸⁹ John Bellers bemerkt schon 1699: „Die Ungewißheit der Mode vergrößert die Zahl der notleidenden Armen. Sie birgt zwei große Mißstände in sich: 1. die Gesellen leiden im Winter Not aus Mangel an Arbeit, da die Schnittwarenhändler und Webermeister nicht wagen, ihre Kapitalien zur Beschäftigung von Gesellen zu verauslagen, bevor der Frühling kommt und sie wissen, was dann Mode sein wird; 2. im Frühling sind nicht genug Gesellen da, so daß die Webermeister viele Lehrlinge heranziehen müssen, um den Handel des Königreichs in einem viertel oder halben Jahr versorgen zu können, wodurch der Ackersmann vom Pflug gerissen, das flache Land von Arbeitern entblößt, die Städte sich zu einem großen Teil mit Bettlern füllen und manche, die sich zu betteln schämen, im Winter dem Hungertode ausgeliefert werden.“ („Essays about the Poor, Manufactures etc.“, p. 9.)

²⁹⁰ „Child. Empl. Comm., V. Rep.“, p. 171, n. 34.

²⁹¹ So heißt es z.B. in den Zeugenaussagen von Bradforder Exporthändlern: „Unter diesen Umständen ist es klar, daß Jungen nicht länger als vom 8 Uhr morgens bis 7 oder 7 1/2 Uhr abends in den Warenhäusern beschäftigt zu werden brauchen. Es ist nur eine Frage von Extra-Auslage und Extra- Händen. Die Jungen brauchen nicht so spät in die Nacht hinein zu arbeiten, wären einige Anwender nicht so profitthungrig; eine Extramaschine kostet nur 16 oder 18 Pfd. St. ... Alle Schwierigkeiten entspringen aus ungenügenden Vorrichtungen und Raummangel.“

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²⁹² l.c. A London manufacturer, who in other respects looks upon the compulsory regulation of the hours of labor as a protection for the workpeople against the manufacturers, and for the manufacturers themselves against the wholesale trade, states: "The pressure in our business is caused by the shippers, who want, e.g., to send the goods by sailing vessel so as to reach their destination at a given season, and at the same time want to pocket the difference in freight between a sailing vessel and a steamship, or who select the earlier of two steamships in order to be in the foreign market before their competitors."

²⁹³ "This could be obviated," says a manufacturer, "at the expense of an enlargement of the works under the pressure of a General Act of Parliament." l.c., p. x., n. 38.

(l.c. p. 171, n. 35, 36 u. 38.)

²⁹² l.c. [p. 81, n. 32.] Ein Londoner Fabrikant, der übrigens die zwangsweise Regulation des Arbeitstags als Schutzmittel der Arbeiter gegen die Fabrikanten und der Fabrikanten selbst gegen den Großhandel betrachtet, sagt aus: „Der Druck in unsrem Geschäft ist verursacht durch die Vershiffer, die z.B. Ware mit einem Segelschiff verschicken wollen, um für eine bestimmte Saison an Ort und Stelle zu sein und zugleich die Frachtdifferenz zwischen Segelschiff und Dampfschiff einzustecken, oder von zwei Dampfschiffen das frühere wählen, um vor ihren Konkurrenten auf dem auswärtigen Markt zu erscheinen.“

²⁹³ „Dem könnte abgeholfen werden“, sagt ein Fabrikant, „auf Kosten einer Erweiterung der Werke unter dem Druck eines allgemeinen Parlamentsakts.“ (l.c. p. X, n. 38.)

15.9. The Factory Acts. Sanitary and Educational Clauses of the Same. Their General Extension in England

Summary and introduction: The factory acts, the first conscious and methodical reaction of society against the spontaneous form which its production process had assumed, are a necessary product of big industry. Now their *generalization* is discussed in two ways: 1) Clauses not relating to the hours of work (until 490:0;G514:1) 2) Extension to other branches of industry (rest of section).

483:1 Factory legislation, that first conscious and methodical reaction of society against the spontaneously developed form of the process of production, is, as we have seen, just as much the necessary product of modern industry as cotton yarn, self-actors, and the electric telegraph. Before passing to the consideration of the extension of that legislation in England, we shall shortly notice certain clauses contained in the Factory Acts, and not relating to the hours of work.

504:1/o Die Fabrikgesetzgebung, diese erste bewußte und planmäßige Rückwirkung der Gesellschaft auf die naturwüchsige Gestalt ihres Produktionsprozesses, ist, wie man gesehn, ebensosehr ein notwendiges Produkt der großen Industrie als Baumwollgarn, Selfactors und der elektrische Telegraph. Bevor wir zu ihrer Verallgemeinerung in England übergehn, sind noch einige nicht auf die Stundenzahl des Arbeitstags bezügliche Klauseln des englischen Fabrikakts kurz zu erwähnen.

Question 1027 Explain how the factory legislation is "just as much the necessary product of modern industry as cotton-yarn, self-actors, and the electric telegraph" (p. 610:1).

Those clauses in the factory acts not relating to work.

::23505:1–506:2:610:2–612:480:2–482:0: Health clauses. Their necessity desproves the Freetrade dogma that "in a society with antagonistic interests each individual promotes the common weal by pursuing his own advantage (Eigennutzes)" It characterizes the capitalist

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mode of production that the most basic health and safety requirements have to be forced on it by legislation of the state. Beyond a certain point, rational improvements of the production process are impossible in capitalism (e.g., 500 cubic feet of air per person)

483:2–484:1 Apart from their wording, which makes it easy for the capitalist to evade them, the sanitary clauses are extremely meagre, and, in fact, limited to provisions for whitewashing the walls, for insuring cleanliness in some other matters, for ventilation, and for protection against dangerous machinery. In the third book we shall return again to the fanatical opposition of the masters to those clauses which imposed upon them a slight expenditure on appliances for protecting the limbs of their workpeople, an opposition that throws a fresh and glaring light on the Free-trade dogma, according to which, in a society with conflicting interests, each individual necessarily furthers the common weal by seeking nothing but his own personal advantage! One example is enough. The reader knows that during the last 20 years, the flax industry has very much extended, and that, with that extension, the number of scutching mills in Ireland has increased. In 1864 there were in that country 1,800 of these mills. Regularly in autumn and winter women and “young persons,” the wives, sons, and daughters of the neighbouring small farmers, a class of people totally unaccustomed to machinery, are taken from field labor to feed the rollers of the scotching mills with flax. The accidents, both as regards number and kind, are wholly unexampled in the history of machinery. In one scotching mill, at Kildinan, near Cork, there occurred between 1852 and 1856, six fatal accidents and sixty mutilations; every one of which might have been prevented by the simplest appliances, at the cost of a few shillings. Dr. W. White, the certifying surgeon for factories at Downpatrick, states in his official report, dated the 15th December, 1865:

“The serious accidents at the scutching mills are of the most fearful nature. In many cases a quarter of the body is torn from the trunk, and either involves death, or a future of wretched

505:2–3 Abgesehn von ihrer Redaktion, welche dem kapitalisten ihre Umgehung erleichtert, sind die Gesundheitsklauseln äußerst mager, in der Tat beschränkt auf Vorschriften für Weißen der Wände und eine sonstige Reinlichkeitsmaßregeln, Ventilation und Schutz gegen gefährliche Maschinerie. Wir kommen im Dritten Buch auf den fanatischen Kampf der Fabrikanten gegen die Klausel zurück, die ihnen eine geringe Ausgabe zum Schutz der Gliedmaßen ihrer „Hände“ aufoktroiert. Hier bewährt sich wieder glänzend das Freihandelsdogma, daß in einer Gesellschaft antagonistischer Interessen jeder das Gemeinwohl durch Verfolgung seines Eigennutzes fördert. Ein Beispiel genügt. Man weiß, daß sich während der letztverfloßnen zwanzigjährigen Periode die Flachsindustrie und mit ihr die scutching mills (Fabriken zum Schlagen und Brechen des Flachses) in Irland sehr vermehrt haben. Es gab dort 1864 an 1800 dieser mills. Periodisch im Herbst und Winter werden hauptsächlich junge Personen und Weiber, die Söhne, Töchter und Frauen der benachbarten kleinen Pächter, lauter mit Maschinerie ganz unbekannte Leute, von der Feldarbeit weggeholt, um die Walzwerke der scutching mills mit Flachs zu füttern. Die Unfälle sind nach Umfang und Intensität gänzlich beispiellos in der Geschichte der Maschinerie. Eine einzige scutching mill zu Kildinan (bei Cork) zählte von 1852 bis 1856 sechs Todesfälle und 60 schwere Verstümmelungen, welchen allen durch die einfachsten Anstalten, zum Preis von wenigen Schillingen, vorgebeugt werden konnte. Dr. W. White, der certifying surgeon der Fabriken zu Downpatrick, erklärt in einem offiziellen Bericht von 16. Dezember 1865:

„Die Unfälle in scutching mills sind furchtbarer Art. In vielen Fällen wird ein Viertel des Körpers vom Rumpfe gerissen. Tod oder eine Zukunft elenden Unvermögens und Leidens

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incapacity and suffering. The increase of mills in the country will, of course, extend these dreadful results, and it will be a great boon if they are brought under the legislature. I am convinced that by proper supervision of scutching mills a vast sacrifice of life and limb would be averted.”²⁹⁴

²⁹⁴ I.c., p. xv., n. 72 sqq.

484:2–3 What could possibly show better the character of the capitalist mode of production, than the necessity that exists for forcing upon it, by Acts of Parliament, the simplest appliances for maintaining cleanliness and health? In the potteries the Factory Act of 1864

“has whitewashed and cleansed upwards of 200 workshops, after a period of abstinence from any such cleaning, in many cases of 20 years, and in some, entirely,” (this is the “abstinence” of the capitalist!) “in which were employed 27,800 artisans, hitherto breathing through protracted days and often nights of labor, a mephitic atmosphere, and which rendered an otherwise comparatively innocuous occupation, pregnant with disease and death. The Act has improved the ventilation very much.”²⁹⁵

²⁹⁵ “Rep. Insp. Fact., 31st October, 1865,” p. 127.

At the same time, this portion of the Act strikingly shows that the capitalist mode of production, owing to its very nature, excludes all rational improvement beyond a certain point. It has been stated over and over again that the English doctors are unanimous in declaring that where the work is continuous, 500 cubic feet is the very least space that should be allowed for each person. Now, if the Factory Acts, owing to their compulsory provisions, indirectly hasten on the conversion of small workshops into factories, thus indirectly attacking the proprietary rights of the smaller capitalists, and assuring a monopoly to the great ones, so, if it were made obligatory to provide the proper space for each workman in every workshop, thousands of small employers would, at one full swoop, be expropriated directly! The very root of the capitalist

sind gewöhnliche Folgen der Wunden. Die Zunahme der Fabriken in diesem Lande wird natürlich diese schauerhaften Resultate ausdehnen. Ich bin überzeugt, daß durch geeignete Staatsüberwachung der scutching mills große Opfer von Leib und Leben zu vermeiden sind.“²⁹⁴

²⁹⁴ I.c. p. XV, n. 72 sqq.

505:4–506:1 Was könnte die kapitalistische Produktionsweise besser charakterisieren als die Notwendigkeit, ihr durch Zwangsgesetz von Staats wegen die einfachsten Reinlichkeits- und Gesundheitsvorrichtungen aufzuherrschen?

„Der Fabrikakt von 1864 hat in den Töpfereien über 200 Werkstätten geweißt und gereinigt, nach zwanzigjähriger oder gänzlicher Enthaltung von jeder solchen Operation“ (dies ist die „Abstinenz“ des Kapitals!), „in Plätzen, wo 27 878 Arbeiter beschäftigt sind und bisher, während übermäßiger Tages-, oft Nachtarbeit, eine mephitische Atmosphäre einatmeten, welche eine sonst vergleichungsweise harmlose Beschäftigung mit Krankheit und Tod schwängerte. Der Akt hat die Ventilationsmittel sehr vermehrt.“²⁹⁵

²⁹⁵ „Reports of Insp. of Fact., 31st Oct. 1865“, p. 127.

506:2 Zugleich zeigt dieser Zweig des Fabrikakts schlagend, wie die kapitalistische Produktionsweise ihrem Wesen nach über einen gewissen Punkt hinaus jede rationelle Verbeßrung anuschließt. Es ward wiederholt bemerkt, daß die englischen Ärzte aus einem Munde 500 Kubikfuß Luftraum per Person für kaum genügendes Minimum bei fortgesetzter Arbeit erklären. Nun wohl! Wenn der Fabrikakt indirekt durch alle seine Zwangsmaßregeln die Verwandlung kleinerer Werkstätten in Fabriken beschleunigt, daher indirekt in das Eigentumsrecht der kleineren Kapitalisten eingreift und den großen das Monopol sichert, so würde die gesetzliche Aufherrschaft des nötigen Luftraums für jeden Arbeiter in der Werkstätte Tausende von kleinen Kapitalisten mit einem Schlag direkt expropriieren! Sie würde die Wurzel der kapitalisti-

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mode of production, i.e., the self-expansion of all capital, large or small, by means of the “free” purchase and consumption of labor-power, would be attacked. Factory legislation is therefore brought to a deadlock before these 500 cubic feet of breathing space. The sanitary officers, the industrial inquiry commissioners, the factory inspectors, all harp, over and over again, upon the necessity for those 500 cubic feet, and upon the impossibility of wringing them out of capital. They thus, in fact, declare that consumption and other lung diseases among the workpeople are necessary conditions to the existence of capital.²⁹⁶

²⁹⁶ It has been found out by experiment, that with each respiration of average intensity made by a healthy average individual, about 25 cubic inches of air are consumed, and that about 20 respirations are made in each minute. Hence the air inhaled in 24 hours by each individual is about 720,000 cubic inches, or 416 cubic feet. It is clear, however, that air which has been once breathed, can no longer serve for the same process until it has been purified in the great workshop of Nature. According to the experiments of Valentin and Brunner, it appears that a healthy man gives off about 1,300 cubic inches of carbonic acid per hour; this would give about 8 ounces of solid carbon thrown off from the lungs in 24 hours.” Every man should have at least 800 cubic feet.” (Huxley.)

::23506:3–513:0:613:1–618:1:482:1–488:1: Education clauses

::23506:3–508:0:613:1–614:0:482:1–484:0: Their success shows that it is possible to combine instruction and gymnastics with handwork, hence also the combination of handwork with instruction and gymnastics must be successful, which is the education of the future.

485:1–486:1 Paltry as the education clauses of the Act appear on the whole, yet they proclaim elementary education to be an indispensable condition to the employment of children.²⁹⁷ The success of those clauses proved for the first time the possibility of combining education and gymnastics²⁹⁸ with manual labor, and, consequently, of combining manual labor with education and gymnastics. The factory inspectors soon found out by questioning the schoolmasters,

schen Produktionsweise angreifen, d.h. die Selbstverwertung des Kapitals, ob groß oder klein, durch „freien“ Ankauf und Konsum der Arbeitskraft. Vor diesen 500 Kubikfuß Luft geht daher der Fabrikgesetzgebung der Atem aus. Die Gesundheitsbehörden, die industriellen Untersuchungskommissionen, die Fabrikinspektoren wiederholen wieder und wieder die Notwendigkeit der 500 Kubikfuß und die Unmöglichkeit, sie dem Kapital aufzuoktroieren. Sie erklären so in der Tat Schwindsucht und andre Lungenkrankheiten der Arbeit für eine Lebensbedingung des Kapitals.²⁹⁶

²⁹⁶ Man hat erfahrungsmäßig gefunden, daß ungefähr 25 Kubikzoll Luft bei jeder Atmung mittlerer Intensität von einem gesunden Durchschnittsindividuum konsumiert werden, und ungefähr 20 Atmungen per Minute vorgehen. Der Luftkonsum eines Individuums in 24 Stunden ergäbe danach ungefähr 720 000 Kubikzoll oder 416 Kubikfuß. Man weiß aber, daß einmal eingeatmete Luft nicht mehr zu demselben Prozeß dienen kann, bevor sie in der großen Werkstätte der Natur gereinigt wird. Nach den Experimenten von Valentin und Brunner scheint ein gesunder Mann ungefähr 1300 Kubikzoll Kohlensäure per Stunde auszuatmen; dies ergäbe ungefähr 8 Unzen solider Kohle, von der Lunge in 24 Stunden abgeworfen. „Jeder Mann sollte wenigstens 800 Kubikfuß haben.“ (Huxley.)

506:3–507:1 Armselig, wie die Erziehungsklauseln des Fabrikakts im ganzen erscheinen, proklamieren sie den Elementarunterricht als Zwangsbedingung der Arbeit.²⁹⁷ Ihr Erfolg bewies zuerst die Möglichkeit der Verbindung von Unterricht und Gymnastik²⁹⁸ mit Handarbeit, also auch von Handarbeit mit Unterricht und Gymnastik. Die Fabrikinspektoren entdeckten bald aus den Zeugenverhören der Schulmeister, daß die Fabrikinder, obgleich sie nur halb soviel Un-

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that the factory children, although receiving only one half the education of the regular day scholars, yet learnt quite as much and often more.

“This can be accounted for by the simple fact that, with only being at school for one half of the day, they are always fresh, and nearly always ready and willing to receive instruction. The system on which they work, half manual labor, and half school, renders each employment a rest and a relief to the other; consequently, both are far more congenial to the child, than would be the case were he kept constantly at one. It is quite clear that a boy who has been at school all the morning, cannot (in hot weather particularly) cope with one who comes fresh and bright from his work.”²⁹⁷

²⁹⁷ According to the English Factory Act, parents cannot send their children under 14 years of age into Factories under the control of the Act, unless at the same time they allow them to receive elementary education. The manufacturer is responsible for compliance with the Act. “Factory education is compulsory, and it is a condition of labor.” (“Rep. Insp. Fact., 31st Oct., 1865,” p. 111.)

²⁹⁸ On the very advantageous results of combining gymnastics (and drilling in the case of boys) with compulsory education for factory children and pauper scholars, see the speech of N. W. Senior at the seventh annual congress of “The National Association for the Promotion of Social Science,” in “Report of Proceedings, etc.,” Lond. 1863, pp. 63, 64, also the “Rep. Insp. Fact., 31st Oct., 1865,” pp. 118, 119, 120, 126, sqq.

²⁹⁹ “Rep. Insp. Fact., 31st Oct., 1865,” p. 118. A silk manufacturer naively states to the Children’s Employment Commissioners: “I am quite sure that the true secret of producing efficient workpeople is to be found in uniting education and labor from a period of childhood. Of course the occupation must not be too severe, nor irksome, or unhealthy. But of the advantage of the union I have no doubt. I wish my own children could have some work as well as play to give variety to their schooling.” (“Ch. Empl. Comm. V. Rep.,” p. 82, n. 36.)

Further information on this point will be found in Senior’s speech at the Social Sci-

terricht genießen als die regelmäßigen Tagesschüler, ebensoviel und oft mehr lernen.

„Die Sache ist einfach. Diejenigen, die sich nur einen halben Tag in der Schule aufhalten, sind stets frisch und fast immer fähig und willig, Unterricht zu empfangen. Das System halber Arbeit und halber Schule macht jede der beiden Beschäftigungen zur Ausruhung und Erholung von der andren und folglich viel angemeßner für das Kind als die ununterbrochene Fortdauer einer von beiden. Ein Junge, der von morgens früh in der Schule sitzt, und nun gar bei heißem Wetter, kann unmöglich mit einem andren wetteifern, der munter und aufgeweckt von seiner Arbeit kommt.“²⁹⁹

²⁹⁷ Nach dem englischen Fabrikakt können die Eltern Kinder unter 14 Jahren nicht in die „kontrollierten“ Fabriken schicken, ohne ihnen zugleich Elementarunterricht erteilen zu lassen. Der Fabrikant ist verantwortlich für die Befolgung des Gesetzes. „Fabrikunterricht ist obligatorisch, und er gehört zu den Arbeitsbedingungen.“ („Reports of Insp. of Fact., 31st Oct. 1865“, p. 111.)

²⁹⁸ Über die vorteilhaftesten Erfolge der Verbindung von Gymnastik (für Jungen auch militärischer Exerzitien) mit Zwangsunterricht der Fabrikkinder und Armenschüler siehe die Rede von N. W. Senior im 7. jährlichen Kongreß der „National Association for the Promotion of Social Science“ in „Report of Proceedings etc.“, Lond. 1863, p. 63, 64, ebenso den Bericht der Fabrikinspektoren für 31. Okt. 1865, p. 118, 119, 120, 126 sqq.

²⁹⁹ „Reports of Insp. of Fact.“, l.c. p. 118, 119. Ein naiver Seidenfabrikant erklärt den Untersuchungskommissären der „Child. Empl. Comm.“: „Ich durchaus überzeugt, daß das wahre Geheimnis der Produktion tüchtiger Arbeiter gefunden ist in der Vereinigung der Arbeit mit Unterricht von der Periode der Kindheit an. Natürlich muß die Arbeit weder zu anstrengend noch widerlich und ungesund sein. Ich wünschte, meine eignen Kinder hätten Arbeit und Spiel zur Abwechslung de Schule.“ „Child. Empl. Comm., V. Rep.“, p. 82, n. 36.)

507:2/o Weitere Belege findet man in Seniors Rede auf dem soziologischen Kon-

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ence Congress at Edinburgh in 1863. He there shows, amongst other things, how the monotonous and uselessly long school hours of the children of the upper and middle classes, uselessly add to the labor of the teacher, "while he not only fruitlessly but absolutely injuriously, wastes the time, health, and energy of the children."³⁰⁰ From the Factory system budded, as Robert Owen has shown us in detail, the germ of the education of the future, an education that will, in the case of every child over a given age, combine productive labor with instruction and gymnastics, not only as one of the methods of adding to the efficiency of production, but as the only method of producing fully developed human beings.

³⁰⁰ Senior, I.c., p. 66. How Modern Industry, when it has attained to a certain pitch, is capable, by the revolution it effects in the mode of production and in the social conditions of production, of also revolutionising people's minds, is strikingly shown by a comparison of Senior's speech in 1863, with his philippic against the Factory Act of 1833; or by a comparison, of the views of the congress above referred to, with the fact that in certain country districts of England poor parents are forbidden, on pain of death by starvation, to educate their children. Thus, e.g., Mr. Snell reports it to be a common occurrence in Somersetshire that, when a poor person claims parish relief, he is compelled to take his children from school. Mr. Wollarton, the clergyman at Feltham, also tells of cases where all relief was denied to certain families "because they were sending their children to school!"

groß zu Edinburgh 1863. Er zeigt hier auch u.a. noch, wie der einseitige unproduktive und verlängerte Schultag der Kinder der höhern und mittlern Klassen die Arbeit der Lehrer nutzlos vermehrt, „während er Zeit, Gesundheit und Energie der Kinder nicht nur fruchtlos, sondern absolut schädlich verwüftet“³⁰⁰. Aus dem Fabrikssystem, wie man im Detail bei Robert Owen verfolgen kann, entsproß der Keim der Erziehung der Zukunft, welcher für alle Kinder über einem gewissen Alter produktive Arbeit mit Unterricht und Gymnastik verbinden wird, nicht nur als eine Methode zur Steigerung der gesellschaftlichen Produktion, sondern als die einzige Methode zur Produktion vollseitig entwickelter Menschen.

³⁰⁰ Senior, I.c. p. 66. Wie die große Industrie auf einem gewissen Höhegrad durch die Umwälzung der materiellen Produktionsweise und der gesellschaftlichen Produktionsverhältnisse auch die Köpfe umwälzt, zeigt schlagend ein Vergleich zwischen der Rede des N. W. Senior von 1863 und seiner Philippika gegen das Fabrikgesetz von 1833 oder ein Vergleich der Ansichten des erwähnten Kongresses mit der Tatsache, daß es in gewissen ländlichen Teilen Englands armen Eltern immer noch bei Strafe des Hungertods verboten ist, ihre Kinder zu erziehen. So z.B. berichtet Herr Snell als gewöhnliche Praxis in Somersetshire, daß, wenn eine arme Person Pfarreihilfe anspricht, sie gezwungen wird, ihre Kinder aus der Schule zu nehmen. So erzählt Herr Wollaston, Pfarrer zu Feltham, von Fällen, wo alle Unterstützung gewissen Familien versagt wurde, „weil sie ihre Jungen zur Schule schickten“!

::23508:1:614:1:484:1:, first sentence: there is a contradiction. 1) That modern industry technically overcomes (aufhebt) the manufactural division of labor which chains one laborer to one particular operation all the time. 2) but the capitalistic form of modern industry reproduces this division of labor on an even more monstrous stage.

486:2–488:1 Modern Industry, as we have seen, sweeps away by technical means the manufacturing division of labor, under which each man is bound hand and foot for life to a single detail-operation. At the same time, the capitalistic form of that industry reproduces this same division of labor in a still more monstrous shape; in the

508:1–509:1 Man hat gesehn, daß die große Industrie die manufakturmäßige Teilung der Arbeit mit ihrer lebenslänglichen Annexion eines ganzen Menschen an eine Detailoperation technisch aufhebt, während zugleich die kapitalistische Form der großen Industrie jene Arbeitsteilung noch monströser reproduziert, in der eigentlichen

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factory proper, by converting the workman into a living appendage of the machine; and everywhere outside the factory, partly by the sporadic use of machinery and machine workers,³⁰¹ partly by re-establishing the division of labor on a fresh basis by the general introduction of the labor of women and children, and of cheap unskilled labor.

³⁰¹ Wherever handicraft-machines, driven by men, compete directly or indirectly with more developed machines driven by mechanical power, a great change takes place with regard to the laborer who drives the machine. At first the steam-engine replaces this laborer, afterwards he must replace the steam-engine. Consequently the tension and the amount of labor-power expended become monstrous, and especially so in the case of the children who are condemned to this torture. Thus Mr. Longe; one of the commissioners, found in Coventry and the neighbourhood boys of from 10 to 15 years employed in driving the ribbon-loom, not to mention younger children who had to drive smaller machines. "It is extraordinarily fatiguing work. The boy is a mere substitute for steam power." ("Ch. Empl. Comm. V. Rep. 1866;" p. 114, n. 6.) As to the fatal consequences of "this system of slavery," as the official report styles it, see l.c., p. 114 sqq.

This contradiction makes itself forcibly felt (macht sich gewaltsam geltend), i.e., leads to a contradiction on the empirical level as well: The children employed in modern factories, "riveted to the most simple manipulations" (in manufacture the artisans had been riveted to *difficult* manipulations!), do not learn the skills to be employed in the same factories when they are older.

The antagonism between the manufacturing division of labor and the methods of Modern Industry makes itself forcibly felt. It manifests itself, amongst other ways, in the frightful fact that a great part of the children employed in modern factories and manufactures, are from their earliest years riveted to the most simple manipulations, and exploited for years, without being taught a single sort of work that would afterwards make them of use, even in the same manufactory or factory. In the English letter-press printing trade, for example, there existed formerly a system, corresponding to that in the old manufactures and handicrafts, of ad-

Fabrik durch Verwandlung des Arbeiters in den selbstbewußten Zubehör einer Teilmaschine, überall sonst teils durch sporadischen Gebrauch der Maschinen und der Maschinenarbeit,³⁰¹ teils durch Einführung von Weiber-, Kinder- und ungeschickter Arbeit als neuer Grundlage der Arbeitsteilung.

³⁰¹ Wo handwerksmäßige Maschinen, durch Menschenkraft getrieben, direkt oder indirekt mit entwickelter und daher mechanische Triebkraft voraussetzender Maschinerie konkurrieren, geht eine große Umwandlung vor mit Bezug auf den Arbeiter, der die Maschine treibt. Ursprünglich ersetzte die Dampfmaschine diesen Arbeiter, jetzt soll er die Dampfmaschine ersetzen. Die Spannung und Verausgabung seiner Arbeitskraft wird daher monströs, und nun gar für Un Erwachsene, die zu dieser Tortur verurteilt sind! So fand der Kommissär Longe in Coventry und Umgebung Jungen von 10 bis 15 Jahren zum Drehn der Bandstühle verwandt, abgesehen von jüngeren Kindern, die Stühle von kleinerer Dimension zu drehn hatten. „Es ist außerordentlich mühsame Arbeit. Der Junge ist ein bloßer Ersatz für Dampfkraft.“ „Child. Empl. Comm., V. Rep. 1866“, p. 114, n. 6.) Über die mörderischen Folgen „dieser Systems der Sklaverei“, wie der offizielle Bericht es nennt, l.c. sq.

Der Widerspruch zwischen der manufakturmäßigen Teilung der Arbeit und dem Wesen der großen Industrie macht sich gewaltsam geltend. Er erscheint u.a. in der furchtbaren Tatsache, daß ein großer Teil der in den modernen Fabriken und Manufakturen beschäftigten Kinder, vom zartesten Alter festgeschmiedet an die einfachsten Manipulationen, jahrelang exploitiert wird, ohne Erlernung irgendeiner Arbeit, die sie später auch nur in derselben Manufaktur oder Fabrik brauchbar machte. In den englischen Buchdruckereien z.B. fand früher ein dem System der alten Manufaktur und des Handwerks entsprechender Übergang der Lehr-

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vancing the apprentices from easy to more and more difficult work. They went through a course of teaching till they were finished printers. To be able to read and write was for every one of them a requirement of their trade. All this was changed by the printing machine. It employs two sorts of laborers, one grown up, renters, the other, boys mostly from 11 to 17 years of age whose sole business is either to spread the sheets of paper under the machine, or to take from it the printed sheets. They perform this weary task, in London especially, for 14, 15, and 16 hours at a stretch, during several days in the week, and frequently for 36 hours, with only 2 hours' rest for meals and sleep.³⁰² A great part of them cannot read, and they are, as a rule, utter savages and very extraordinary creatures.

“To qualify them for the work which they have to do, they require no intellectual training; there is little room in it for skill, and less for judgment; their wages, though rather high for boys, do not increase proportionately as they grow up, and the majority of them cannot look for advancement to the better paid and more responsible post of machine minder, because while each machine has but one minder, it has at least two, and often four boys attached to it.”³⁰³

³⁰² I.c., p. 3, n. 24.

³⁰³ I.c., P. 7, n. 60.

As soon as they get too old for such child's work, that is about 17 at the latest, they are discharged from the printing establishments. They become recruits of crime. Several attempts to procure them employment elsewhere, were rendered of no avail by their ignorance and brutality, and by their mental and bodily degradation.

::23509:3–513:0:615:1–618:1:485:1–488:1: This same contradiction on the level of the whole society: Modern industry dissolves the diverse ossified shapes of the production process (until ::23511:0, Mitte::487:0, first whole sentence:. On the other hand, in its capitalistic form it reproduces the ancient division of labor with its ossified particularities (because it still has the form of private property? Marx did not explain very well what this means!) E.g., not only the functions of the laborer are replaced, but the laborer himself is replaced! (In socialism, the laborer can change his activity if his former activity is replaced by ma-

linge von leichtren zu inhaltsvollren Arbeiten statt. Sie machten einen Lerngang durch, bis sie fertige Drucker waren. Lesen und schreiben zu können war für alle ein Handwerkserfordernis. Alles das änderte sich mit der Druckmaschine. Sie verwendet zwei Sorten von Arbeitern, einen erwachsenen Arbeiter, den Maschinenaufseher, und Maschinenjungen, meist von 11–17 Jahren, deren Geschäft ausschließlich darin besteht, einen Bogen Papier der Maschine zu unterbreiten oder ihr den gedruckten Bogen zu entziehen. Sie verrichten, in London namentlich, diese Plackerei 14, 15, 16 Stunden ununterbrochen während einiger Tage in der Woche und oft 36 Stunden nacheinander mit nur zwei Stunden Rast für Mahlzeit und Schlaf!³⁰² Ein großer Teil von ihnen kann nicht lesen, und sie sind in der Regel ganz verwilderte, abnorme Geschöpfe.

„Um sie zu ihrem Werk zu befähigen, ist keine intellektuelle Ziehung irgendeiner Art nötig; sie haben wenig Gelegenheit für Geschick und noch weniger für Urteil; ihr Lohn, obgleich gewissermaßen hoch für Jungen, wächst nicht verhältnismäßig, wie sie selbst heranwachsen, und die große Mehrzahl hat keine Aussicht auf den einträglicheren und verantwortlichen Posten des Maschinenaufsehers, weil auf jede Maschine nur ein Aufseher und oft 4 Jungen kommen.“³⁰³

³⁰² I.c. p. 3, n. 24.

³⁰³ I.c. p. 7, n. 60.

509:2 Sobald sie zu alt für ihre kindische Arbeit werden, also wenigstens im 17. Jahr, entläßt man sie aus der Druckerei. Sie werden Rekruten des Verbrechens. Einige Versuche, ihnen anderswo Beschäftigung zu verschaffen, scheiterten an ihrer Unwissenheit, Roheit, körperlichen und geistigen Verkommenheit.

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chinery; he will even be the one who develops this machinery! in capitalism, he is thrown on the street, unemployed, and only by this mechanism of lower wages and many available laborers he will be gobbled up again by a different capitalist).

Then: necessity to develop the fitness of the laborer for varied work, technical and agricultural schools.

488:3–491:1 As with the division of labor in the interior of the manufacturing workshops, so it is with the division of labor in the interior of society. So long as handicraft and manufacture form the general groundwork of social production, the subjection of the producer to one branch exclusively, the breaking up of the multifariousness of his employment,³⁰⁴ is a necessary step in the development. On that groundwork each separate branch of production acquires empirically the form that is technically suited to it, slowly perfects it, and, so soon as a given degree of maturity has been reached, rapidly crystallises that form. The only thing, that here and there causes a change, besides new raw material supplied by commerce, is the gradual alteration of the instruments of labor. But their form, too, once definitely settled by experience, petrifies, as is proved by their being in many cases handed down in the same form by one generation to another during thousands of years. A characteristic feature is, that, even down into the eighteenth century, the different trades were called “mysteries” (mystères);³⁰⁵ into their secrets none but those duly initiated could penetrate. Modern Industry rent the veil that concealed from men their own social process of production, and that turned the various, spontaneously divided branches of production into so many riddles, not only to outsiders, but even to the initiated. The principle which it pursued, of resolving each process into its constituent movements, without any regard to their possible execution by the hand of man, created the new modern science of technology. The varied, apparently unconnected, and petrified forms of the industrial processes now resolved themselves into so many conscious and systematic applications

509:3/oooo Was von der manufakturmäßigen Teilung der Arbeit im Innern der Werkstatt, gilt von der Teilung der Arbeit im Innern der Gesellschaft. Solange Handwerk und Manufaktur die allgemeine Grundlage der gesellschaftlichen Produktion bilden, ist die Subsumtion des Produzenten unter einen ausschließlichen Produktionszweig, die Zerreißung der ursprünglichen Mannigfaltigkeit seiner Beschäftigungen,³⁰⁴ ein notwendiges Entwicklungsmoment. Auf jener Grundlage findet jeder besondere Produktionszweig empirisch die ihm entsprechende technische Gestalt, vervollkommenet sie langsam und kristallisiert sie rasch, sobald ein gewisser Reifegrad erlangt ist. Was hier und da Wechsel hervorruft, ist außer neuem Arbeitsstoff, den der Handel liefert, die allmähliche Änderung des Arbeitsinstruments. Die erfahrungsmäßig entsprechende Form einmal gewonnen, verknöchert auch es, wie sein oft jahrtausendlanger Übergang aus der Hand einer Generation in die der andren beweist. Es ist charakteristisch, daß bis ins 18. Jahrhundert hinein die besondern Gewerke mysteries (mystères)³⁰⁵ hießen, in deren Dunkel nur der empirisch und professionell Eingeweihte eindringen konnte. Die große Industrie zerriß den Schleier, der den Menschen ihren eignen gesellschaftlichen Produktionsprozeß versteckte und die verschiedenen naturwüchsig besondern Produktionszweige gegeneinander und sogar dem in jedem Zweig Eingeweihten zu Rätseln machte. Ihr Prinzip, jeden Produktionsprozeß, an und für sich und zunächst ohne alle Rücksicht auf die menschliche Hand, in seine konstituierenden Elemente aufzulösen, schuf die ganz moderne Wissenschaft der Technologie. Die buntscheckigen, scheinbar zusammenhangslosen und verknöcherten Gestal-

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of natural science to the attainment of given useful effects. Technology also discovered the few main fundamental forms of motion, which, despite the diversity of the instruments used, are necessarily taken by every productive action of the human body; just as the science of mechanics sees in the most complicated machinery nothing but the continual repetition of the simple mechanical powers. Modern Industry never looks upon and treats the existing form of a process as final. The technical basis of that industry is therefore revolutionary, while all earlier modes of production were essentially conservative.³⁰⁶ By means of machinery, chemical processes and other methods, it is continually causing changes not only in the technical basis of production, but also in the functions of the laborer, and in the social combinations of the labor-process. At the same time, it thereby also revolutionises the division of labor within the society, and incessantly launches masses of capital and of workpeople from one branch of production to another. But if Modern Industry, by its very nature, therefore necessitates variation of labor, fluency of function, universal mobility of the laborer, on the other hand, in its capitalistic form, it reproduces the old division of labor with its ossified particularisations. We have seen how this absolute contradiction between the technical necessities of Modern Industry, and the social character inherent in its capitalistic form, dispels all fixity and security in the situation of the laborer; how it constantly threatens, by taking away the instruments of labor, to snatch from his hands his means of subsistence,^{/fn226} and, by suppressing his detail-function, to make him superfluous. We have seen, too, how this antagonism vents its rage in the creation of that monstrosity, an industrial reserve army, kept in misery in order to be always at the disposal of capital; in the incessant human sacrifices from among the working-class, in the most reckless squandering of labor-power and in

ten des gesellschaftlichen Produktionsprozesses lösten sich auf in bewußt planmäßige und je nach dem bezweckten Nutzeffekt systematisch besonderte Anwendungen der Naturwissenschaft. Die Technologie entdeckte ebenso die wenigen großen Grundformen der Bewegung, worin alles produktive Tun des menschlichen Körpers, trotz aller Mannigfaltigkeit der angewandten Instrumente, notwendig vorgeht, ganz so wie die Mechanik durch die größte Komplikation der Maschinerie sich über die beständige Wiederholung der einfachen mechanischen Potenzen nicht täuschen läßt. Die moderne Industrie betrachtet und behandelt die vorhandne Form eines Produktionsprozesses nie als definitiv. Ihre technische Basis ist daher revolutionär, während die aller früheren Produktionsweisen wesentlich konservativ war.³⁰⁶ Durch Maschinerie, chemische Prozesse und andre Methoden wälzt sie beständig mit der technischen Grundlage der Produktion die Funktionen der Arbeiter und die gesellschaftlichen Kombinationen des Arbeitsprozesses um. Sie revolutioniert damit ebenso beständig die Teilung der Arbeit im Innern der Gesellschaft und schleudert unaufhörlich Kapitalmassen und Arbeitermassen aus einem Produktionszweig in den andern. Die Natur der großen Industrie bedingt daher Wechsel der Arbeit, Fluß der Funktion, allseitige Beweglichkeit des Arbeiters. Andererseits reproduziert sie in ihrer kapitalistischen Form die alte Teilung der Arbeit mit ihren knöchernen Partikularitäten. Man hat gesehn, wie dieser absolute Widerspruch alle Ruhe, Festigkeit, Sicherheit der Lebenslage des Arbeiters aufhebt, ihm mit dem Arbeitsmittel beständig das Lebesmittel aus der Hand zu schlagen³⁰⁷ und mit seiner Teilfunktion ihn selbst überflüssig zu machen droht; wie dieser Widerspruch im ununterbrochenen Opferfest der Arbeiterklasse, maßloser Vergeudung der Arbeitskräfte und den Verheerungen gesellschaftlicher Anarchie sich austobt. Dies ist die negative Seite.

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the devastation caused by a social anarchy which turns every economic progress into a social calamity. This is the negative side. But if, on the one hand, variation of work at present imposes itself after the manner of an overpowering natural law, and with the blindly destructive action of a natural law that meets with resistance³⁰⁸ at all points, Modern Industry, on the other hand, through its catastrophes imposes the necessity of recognising, as a fundamental law of production, variation of work, consequently fitness of the laborer for varied work, consequently the greatest possible development of his varied aptitudes. It becomes a question of life and death for society to adapt the mode of production to the normal functioning of this law. Modern Industry, indeed, compels society, under penalty of death, to replace the detail-worker of to-day, grappled by life-long repetition of one and the same trivial operation, and thus reduced to the mere fragment of a man, by the fully developed individual, fit for a variety of labors, ready to face any change of production, and to whom the different social functions he performs, are but so many modes of giving free scope to his own natural and acquired powers. One step already spontaneously taken towards effecting this revolution is the establishment of technical and agricultural schools, and of “*écoles d’enseignement professionnel*,” in which the children of the working-men receive some little instruction in technology and in the practical handling of the various implements of labor. Though the Factory Act, that first and meagre concession wrung from capital, is limited to combining elementary education with work in the factory, there can be no doubt that when the working-class comes into power, as inevitably it must, technical instruction, both theoretical and practical, will take its proper place in the working-class schools. There is also no doubt that such revolutionary regents, the final result of which is the abolition of the old division of labor, are di-

Wenn aber der Wechsel der Arbeit sich jetzt nur als überwältigendes Naturgesetz und mit der blind zerstörenden Wirkung eines Naturgesetzes durchsetzt, das überall auf Hindernisse stößt,³⁰⁸ macht die große Industrie durch ihre Katastrophen selbst es zur Frage von Leben oder Tod, den Wechsel der Arbeiten und daher möglichste Vielseitigkeit der Arbeiter als allgemeines gesellschaftliches Produktionsgesetz anzuerkennen und seiner normalen Verwirklichung die Verhältnisse anzupassen. Sie macht es zu einer Frage von Leben oder Tod, die Ungeheuerlichkeit einer elenden, für das wechselnde Exploitationsbedürfnis des Kapitals in Reserve gehaltenen, disponiblen Arbeiterbevölkerung zu ersetzen durch die absolute Disponibilität des Menschen für wechselnde Arbeitserfordernisse; das Teilindividuum, den bloßen Träger einer gesellschaftlichen Detailfunktion, durch das total entwickelte Individuum, für welches verschiedene gesellschaftliche Funktionen einander ablösende Betätigungsweisen sind. Ein auf Grundlage der großen Industrie naturwüchsig entwickeltes Moment dieses Umwälzungsprozesses sind polytechnische und agronomische Schulen, ein andres sind die „*écoles d’enseignement professionnel*“, worin die Kinder der Arbeiter einigen Unterricht in der Technologie und praktischen Handhabung der verschiedenen Produktionsinstrumente erhalten. Wenn die Fabrikgesetzgebung als erste, dem Kapital notdürftig abgerungene Konzession nur Elementarunterricht mit fabrikmäßiger Arbeit verbindet, unterliegt es keinem Zweifel, daß die unvermeidliche Eroberung der politischen Gewalt durch die Arbeiterklasse auch dem technologischen Unterricht, theoretisch und praktisch, seinen Platz in den Arbeiterschulen erobern wird. Es unterliegt ebensowenig einem Zweifel, daß die kapitalistische Form der Produktion und die ihr entsprechenden ökonomischen Arbeiterverhältnisse im diametralsten Widerspruch stehn mit solchen Umwälzungsfermenten und ihrem Ziel, der Aufhebung

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ametrically opposed to the capitalistic form of production, and to the economic status of the laborer corresponding to that form. But the historical development of the antagonisms, immanent in a given form of production, is the only way in which that form of production can be dissolved and a new form established. “Ne sutor ultra crepidam”—this nec plus ultra of handicraft wisdom became sheer nonsense, from the moment the watchmaker Watt invented the steam-engine, the barber Arkwright, the throstle, and the working-jeweller, Fulton, the steamship.³⁰⁹

Schuster bleib bei deinen Leisten, Marx stresses here how the elements of big industry were invented by people not working in the field.

³⁰⁴ “in some parts of the Highlands of Scotland, not many years ago, every peasant, according to the Statistical Account, made his own shoes of leather tanned by himself. Many a shepherd and cottar too, with his wife and children, appeared at Church in clothes which had been touched by no hands but their own, since they were shorn from the sheep and sown in the flax-field. In the preparation of these, it is added, scarcely a single article had been purchased, except the awl, needle, thimble, and a very few parts of the iron-work employed in the weaving. The dyes, too, were chiefly extracted by the women from trees, shrubs and herbs.” (Dugald Stewart’s “Works,” Hamilton’s Ed., Vol. viii., pp. 327–328.)

³⁰⁵ In the celebrated “*Livre des métiers*” of Etienne Boileau, we find it prescribed that a journeyman on being admitted among the masters had to swear “to love his brethren with brotherly love, to support them in their respective trades, not wilfully to betray the secrets of the trade, and besides, in the interests of all, not to recommend his own-wares by calling the attention of the buyer to defects in the articles made by others.”

³⁰⁶ “The bourgeoisie cannot exist without continually revolutionising the instruments of production, and thereby the relations of production and all the social relations. Conservation, in an unaltered form, of the old modes of production was on the contrary the first condition of existence for all earlier industrial classes. Constant revolution in production, uninterrupted dis-

der alten Teilung der Arbeit. Die Entwicklung der Widersprüche einer geschichtlichen Produktionsform ist jedoch der einzig geschichtliche Weg ihrer Auflösung und Neugestaltung. „Ne sutor ultra crepidam“!, die nec plus ultra handwerksmäßiger Weisheit, wurde zur furchtbaren Narrheit von dem Moment, wo der Uhrmacher Watt die Dampfmaschine, der Barbier Arkwright den Kettenstuhl, der Juwelierarbeiter Fulton das Dampfschiff erfunden hatte.³⁰⁹

³⁰⁴ „In einigen Teilen von Hochschottland ... erschienen viele Schafhirten und cottars mit Frau und Kind, nach dem Statistical Account, in Schuhen, die sie selbst gemacht aus Leder, das sie selbst gegerbt, in Kleidern, die keine Hand außer ihrer eignen angetastet, deren Material sie selbst von den Schafen geschoren oder wofür sie den Flachs selbst gebaut hatten. In die Zubereitung der Kleider ging kaum irgendein gekaufter Artikel ein, mit Ausnahme von Pfieme, Hadel, Fingerhut und sehr wenigen Teilen des im Weben angewandten Eisenwerks. Die Farben wurden von den Weibern selbst von Bäumen, Gesträuchen und Kräutern gewonnen usw.“ (Dugald Stewart, „Works“, ed. Hamilton, vol. VIII, p. 327–328.)

³⁰⁵ In dem berühmten „*Livre des métiers*“ des Etienne Boileau wird unter andrem vorgeschrieben, daß ein Geselle bei seiner Aufnahme unter die Meister einen Eid leiste, „seine Brüder brüderlich zu lieben, sie zu stützen, jeder in seinem métier, nicht freiwillig die Gewerksgeheimnisse zu verraten und sogar im Interesse der Gesamtheit nicht zur Empfehlung seiner eignen Ware den Käufer auf die Fehler des Machwerks von andren aufmerksam zu machen“.

³⁰⁶ „Die Bourgeoisie kann nicht existieren, ohne die Produktionsinstrumente, also die Produktionsverhältnisse, also sämtliche gesellschaftlichen Verhältnisse fortwährend zu revolutionieren. Unveränderte Beibehaltung der alten Produktionsweise war dagegen die erste Existenzbedingung aller früheren industriellen Klassen. Die fortwährend Umwälzung der Produktion, die un-

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turbance of all social conditions, everlasting uncertainty and agitation, distinguish the bourgeois epoch from all earlier ones. All fixed, fast-frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all new formed ones become antiquated before they can ossify. All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses his real conditions of life, and his relations with his kind.” (F. Engels und Karl Marx: „Manifest der Kommunistischen Partei.” Lond. 1848, p. 5.)

³⁰⁷ “You take my life
When you do take the means whereby I live.”
Shakespeare.

³⁰⁸ A French workman, on his return from San-Francisco, writes as follows: “I never could have believed, that I was capable of working at the various occupations I was employed on in California. I was firmly convinced that I was fit for nothing but letter-press printing... Once in the midst of this world of adventurers, who change their occupation as often as they do their shirt, egad, I did as the others. As mining did not turn out remunerative enough, I left it for the town, where in succession I became typographer, slater, plumber, etc. In consequence of thus finding out that I am fit to any sort of work, I feel less of a mollusk and more of a man.” (A. Corbon, “De l’enseignement professionnel,” 2ème ed., p. 50.)

³⁰⁹ John Bellers, a very phenomenon in the history of Political Economy, saw most clearly at the end of the 17th century, the necessity for abolishing the present system of education and division of labor, which beget hypertrophy and atrophy at the two opposite extremities of society. Amongst other things he says this: “An idle learning being little better than the learning of idleness... Bodily labor, it’s a primitive institution of God... Labor being as proper for the bodies’ health as eating is for its living; for what pains a man saves by ease, he will find in disease... Labor adds oil to the lamp of life, when thinking inflames it... A childish silly employ” (a warning this, by presentiment, against the Base-dows and their modern imitators) “leaves the children’s minds silly.” (“Proposals for Raising

unterbrochene Erschütterung aller gesellschaftlichen Zustände, die ewige Unsicherheit und Bewegung zeichnen die Bourgeoisepoche vor allen früheren aus. Alle festen, eingerosteten Verhältnisse mit ihrem Gefolge von altehrwürdigen Vorstellungen und Anschauungen werden aufgelöst, alle neugebildeten veralten, ehe sie verknöchern können. Alles Ständische und Stehende verdampft, alles Heilige wird entweiht, und die Menschen sind endlich gezwungen, ihre Lebensstellungen, ihre gegenseitigen Beziehungen mit nüchternen Augen anzusehn.“ (F. Engels und Karl Marx, „Manifest der Kommunistischen Partei“, Lond. 1848, p. 5)

³⁰⁷ „Ihr nehmt mein Leben,
Wenn ihr die Mittel nehmt, wodurch ich lebe.“
(Shakespeare)

³⁰⁸ Ein französischer Arbeiter schreibt bei seiner Rückkehr von San Franzisko: „Ich hätte nie geglaubt, daß ich fähig wäre, alle die Gewerbe auszuüben, die ich in Kalifornien betrieben habe. Ich war fest überzeugt, daß ich außer zur Buchdruckerei zu nichts gut sei... Einmal in der Mitte dieser Welt von Abenteurern, welche ihr Handwerk leichter wechseln als ihr Hemde, meiner Treu! ich tat wie die andren. Da das Geschäft der Minenarbeit sich nicht einträglich genug auswies, verließ ich es und zog in die Stadt, wo ich der Reihe nach Typograph, Dachdecker, Bleigießer usw. wurde. Infolge dieser Erfahrung, zu allen Arbeiten tauglich zu sein, fühle ich mich weniger als Molluske und mehr als Mensch.“ (A. Corbon, „Der l’enseignement professionnel“, 2ème éd. p. 50.)

³⁰⁹ John Bellers, ein wahres Phänomen in der Geschichte der politischen Ökonomie, begriff schon Ende des 17. Jahrhunderts mit vollster Klarheit die notwendige Aufhebung der jetzigen Erziehung und Arbeitseinteilung, welche Hypertrophie und Atrophie auf beiden Extremen der Gesellschaft, wenn auch in entgegengesetzter Richtung, erzeugen. Er sagt u.a. schön: „Müßig Lernen ist wenig besser als das Lernen von Müßiggang... Körperliche Arbeit hat Gott selbst ursprünglich eingerichtet... Arbeit ist so notwendig für die Gesundheit des Körpers, wie Essen für sein Leben; denn die Schmerzen, welche man sich durch Müßiggang erspart, wird man durch Krankheit bekommen... Arbeit tut Öl auf die Lampe des Lebens, Denken aber entzündet sie... Eine kindisch dumme Beschäftigung“

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a Colledge of Industry of all Useful Trades and Husbandry." Lond., 1696, pp. 12, 14, 18.)

(dies ahnungsvoll gegen die Basedows und ihre modernen Nachstümper) „läßt den Geist der Kinder dumm.“ „Proposals for raising a Colledge of Industry of all useful Trades and Husbandry“, Lond. 1696, p. 12, 14, 16, 18.)

::23513:1–514:1:619–621:1:489–490:0: Laws concerning housework. Under capitalism, the traditional form of the family becomes the basis for misuse and must be transformed.

491:2–492:1 So long as Factory legislation is confined to regulating the labor in factories, manufactories, etc., it is regarded as a mere interference with the exploiting rights of capital. But when it comes to regulating the so-called “home-labor,”³¹⁰ it is immediately viewed as a direct attack on the patria potestas, on parental authority. The tender-hearted English Parliament long affected to shrink from taking this step. The force of facts, however, compelled it at last to acknowledge that modern industry, in overturning the economic foundation on which was based the traditional family, and the family labor corresponding to it, had also unloosened all traditional family ties. The rights of the children had to be proclaimed. The final report of the Ch. Empl. Comm. of 1866, states:

513:1–514:0 Soweit die Fabrikgesetzgebung die Arbeit in Fabriken, Manufakturen usw. reguliert, erscheint dies zunächst nur als Einmischung in die Exploitationsrechte des Kapitals. Jede Regulation der sog. Hausarbeit³¹⁰ stellt sich dagegen sofort als direkter Eingriff in die patria potestas dar, d.h. modern interpretiert, in die elterliche Autorität, ein Schritt, wovor das zartfühlende englische Parlament lang zurückzubecken affektierte. Die Gewalt der Tatsachen zwang jedoch, endlich anzuerkennen, daß die große Industrie mit der ökonomischen Grundlage des alten Familienwesens und der ihr entsprechenden Familienarbeit auch die alten Familienverhältnisse selbst auflöst. Das Recht der Kinder mußte proklamiert werden.

“It is unhappily, to a painful degree, apparent throughout the whole of the evidence, that against no persons do the children of both sexes so much require protection as against their parents.” The system of unlimited exploitation of children’s labor in general and the so-called home-labor in particular is “maintained only because the parents are able, without check or control, to exercise this arbitrary and mischievous power over their young and tender offspring ... Parents must not possess the absolute power of making their children mere ‘machines to earn so much weekly wage ...’ The children and young persons, therefore, in all such cases may justifiably claim from the legislature, as a natural right, that an exemption should be secured to them, from what destroys prematurely their physical strength, and lowers them in the scale of intellectual and moral beings.”³¹¹

„Unglücklicherweise“, heißt es im Schlußbericht der „Child. Empl. Comm.“ von 1866, „leuchtet aus der Gesamtheit der Zeugenaussagen hervor, daß die Kinder beiderlei Geschlechts gegen niemand so sehr des Schutzes bedürfen als gegen ihre Eltern.“ Das System der maßlosen Exploitation der Kinderarbeit überhaupt und der Hausarbeit im besonderen wird dadurch „erhalten, daß die Eltern über ihre jungen und zarten Sprößlinge eine willkürliche und heillose Gewalt ohne Zügel oder Kontrolle ausüben ... Eltern dürfen nicht die absolute Macht besitzen, ihre Kinder zu reinen Maschinen zu machen, um soundso viel wöchentlichen Lohn herauszuschlagen... Kinder und junge Personen haben ein Recht auf den Schutz der Legislatur wider den Mißbrauch der elterlichen Gewalt, der ihre physische Kraft vorzeitig bricht und sie degradiert auf der Staffel moralischer und intellektueller Wesen.“³¹¹

³¹⁰ This sort of labor goes on mostly in small workshops, as we have seen in the lacemaking

³¹⁰ Diese geht übrigens größtenteils auch in kleineren Werkstätten vor, wie wir gesehen bei

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and straw-plaiting trades, and as could be shown more in detail from the metal trades of Sheffield, Birmingham, etc.

³¹¹ “Ch. Empl. Comm., V. Rep.,” p. xxv., n. 162, and II. Rep., p. xxxviii., n. 285, 289, p. xxv., xxvi., n. 191.

It was not, however, the misuse of parental authority that created the capitalistic exploitation, whether direct or indirect, of children’s labor; but, on the contrary, it was the capitalistic mode of exploitation which, by sweeping away the economic basis of parental authority, made its exercise degenerate into a mischievous misuse of power. However terrible and disgusting the dissolution, under the capitalist system, of the old family ties may appear, nevertheless, modern industry, by assigning as it does an important part in the process of production, outside the domestic sphere, to women, to young persons, and to children of both sexes, creates a new economic foundation for a higher form of the family and of the relations between the sexes. It is, of course, just as absurd to hold the Teutonic-Christian form of the family to be absolute and final as it would be to apply that character to the ancient Roman, the ancient Greek, or the Eastern forms which, moreover, taken together form a series in historical development. Moreover, it is obvious that the fact of the collective working group being composed of individuals of both sexes and all ages, must necessarily, under suitable conditions, become a source of humane development; although in its spontaneously developed, brutal, capitalistic form, where the laborer exists for the process of production, and not the process of production for the laborer, that fact is a pestiferous source of corruption and slavery.³¹²

³¹² “Factory labor may be as pure and as excellent as domestic labor, and perhaps more so” (“Rep. Insp. of Fact., 31st October, 1865,” p. 129.)

der Spitzenmanufaktur und Strohflechtereie, und wie namentlich auch an den Metallmanufakturen in Sheffield, Birmingham usw. ausführlicher gezeigt werden könnte.

³¹¹ „Child. Empl. Comm., V. Rep.“, p. XXV, n. 162 und II. Rep., p. XXXVIII, n. 285, 289, p. XXV, XXVI, n. 191.

514:1 Es ist jedoch nicht der Mißbrauch der elterlichen Gewalt, der die direkt oder indirekte Exploitation unreifer Arbeitskräfte durch das Kapital schuf, sondern es ist umgekehrt die kapitalistische Exploitationsweise, welche die elterliche Gewalt, durch Aufhebung der ihr entsprechenden ökonomischen Grundlage, zu einem Mißbrauch gemacht hat. So furchtbar und ekelhaft nun die Auflösung des alten Familienwesens innerhalb des kapitalistischen Systems erscheint, so schafft nichtsdestoweniger die große Industrie mit der entscheidenden Rolle, die sie den Weibern, jungen Personen und Kindern beiderlei Geschlechts in gesellschaftlich organisierten Produktionsprozessen jenseits der Sphäre des Hauswesens zuweist, die neue ökonomische Grundlage für eine höhere Form der Familie und des Verhältnisses beider Geschlechter. Es ist natürlich ebenso albern, die christlich germanische Form der Familie für absolut zu halten als die altrömische Form, oder die altgriechische, oder die orientalische, die übrigens untereinander eine geschichtliche Entwicklungsreihe bilden. Ebenso leuchtet ein, daß die Zusammensetzung des kombinierten Arbeitspersonals aus Individuen beiderlei Geschlechts und der verschiedensten Altersstufen, obgleich in ihrer naturwüchsig brutalen, kapitalistischen Form, wo der Arbeiter für den Produktionsprozeß, nicht der Produktionsprozeß für den Arbeiter da ist, Pestquelle des Verderbs und der Sklaverei, unter entsprechenden Verhältnissen umgekehrt zur Quelle humaner Entwicklung umschlagen muß.³¹²

³¹² „Fabrikarbeit kann genauso rein und vortrefflich sein wie Hausarbeit, ja vielleicht noch mehr.“ „Reports of Insp. of Fact., 31st Oct. 1865“, p. 129.)

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::23:621:1–635:1:490:1–503:3: Extension of the factory acts to other branches of industry.

::23514:2–515:621:1–622:0:490:1–491:0: The *general reason* for this generalization: Since the big industry also transforms manufacture and small handicraft production, often creating there the most miserable conditions, also the factory acts must be generalized. Then two *circumstances which trigger off* the extension legislation:

1) Capital, under control in single points, compensates itself so much more recklessly on others. (We thought: perhaps the controlled industries did not get enough credit any more, since the uncontrolled industries are ore profitable).

2) The capitalists themselves ask for equality of their competitive conditions.

493:1–2 The necessity for a generalisation of the Factory Acts, for transforming them from an exceptional law relating to mechanical spinning and weaving—those first creations of machinery—into a law affecting social production as a whole, arose, as we have seen, from the mode in which Modern Industry was historically developed. In the rear of that industry, the traditional form of manufacture, of handicraft, and of domestic industry, is entirely revolutionised; manufactures are constantly passing into the factory system, and handicrafts into manufactures; and lastly, the spheres of handicraft and of the domestic industries become, in a, comparatively speaking, wonderfully short time, dens of misery in which capitalistic exploitation obtains free play for the wildest excesses. There are two circumstances that finally turn the scale: first, the constantly recurring experience that capital, so soon as it finds itself subject to legal control at one point, compensates itself all the more recklessly at other points;³¹³ secondly, the cry of the capitalists for equality in the conditions of competition, i.e., for equal restraint on all exploitation of labor.³¹⁴ On this point let us listen to two heart-broken cries. Messrs. Cooksley of Bristol, nail and chain, etc., manufacturers, spontaneously introduced the regulations of the Factory Act into their business.

“As the old irregular system prevails in neighbouring works, the Messrs. Cooksley are subject to the disadvantage of having their boys enticed to continue their labor elsewhere after 6 p.m. ‘This’, they naturally say, ‘is an injustice and loss to us, as it exhausts a portion of the boy’s strength, of which we ought to have

514:2–515:1 Die Notwendigkeit, das Fabrikgesetz aus einem Ausnahmegesetz für Spinnereien und Webereien, diese ersten Gebilde des Maschinenbetriebs, in ein Gesetz aller gesellschaftlichen Produktion zu verallgemeinern, entspringt, wie man sah, aus dem geschichtlichen Entwicklungsgang der großen Industrie, auf deren Hintergrund die überlieferte Gestalt von Manufaktur, Handwerk und Hausarbeit gänzlich umgewälzt wird, die Manufaktur beständig in die Fabrik, das Handwerk beständig in die Manufaktur umschlägt und endlich die Sphären des Handwerks und der Hausarbeit sich in relativ wunderbar kurzer Zeit zu Jammerhöhlen gestalten, wo die tollsten Ungeheuerlichkeiten der kapitalistischen Exploitation ihr freies Spiel treiben. Es sind zwei Umstände, welche zuletzt den Ausschlag geben, erstens die stets neu wiederholte Erfahrung, daß das Kapital, sobald es der Staatskontrolle nur auf einzelnen Punkten der gesellschaftlichen Peripherie anheimfällt, sich um so maßloser auf den andern Punkten entschädigt,³¹³ zweitens der Schrei der Kapitalisten selbst nach Gleichheit der Konkurrenzbedingungen, d.h. gleichen Schranken der Arbeitsexploitation.³¹⁴ Hören wir hierüber zwei Herzensstöße. Die Herrn W. Cooksley (Nagel-, Ketten- usw. Fabrikanten zu Bristol) führten die Fabrikregulation freiwillig in ihrem Geschäft ein.

„Da das alte, unregelmäßige System in den benachbarten Werken fort dauert, sind sie der Unbill ausgesetzt, ihre Arbeitsjungen zur Fortsetzung der Arbeit anderswo nach 6 Uhr abends verlockt (enticed) zu sein. „Dies“, sagen sie natürlich, „ist eine Ungerechtigkeit gegen uns und ein Verlust, das es einen Teil der

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the full benefit.”³¹⁵

³¹³ “Rep. Insp. of Fact., 31st October, 1865,” pp. 27–32.

³¹⁴ Numerous instances will be found in “Rep. of Insp. of Fact.”

³¹⁵ “Ch. Empl. Comm., V. Rep.,” p. x., n. 35.

Mr. J. Simpson (paper box and bagmaker, London) states before the commissioners of the Ch. Empl. Comm.:

“He would sign any petition for it” (legislative interference) . . . “As it was, he always felt restless at night, when he had closed his place, lest others should be working later than him and getting away his orders.”³¹⁶ Summarising, the Ch. Empl. Comm. says: “It would be unjust to the larger employers that their factories should be placed under regulation, while the hours of labor in the smaller places in their own branch of business were under no legislative restriction. And to the injustice arising from the unfair conditions of competition, in regard to hours, that would be created if the smaller places of work were exempt, would be added the disadvantage to the larger manufacturers, of finding their supply of juvenile and female labor drawn off to the places of work exempt from legislation. Further, a stimulus would be given to the multiplication of the smaller places of work, which are almost invariably the least favourable to the health, comfort, education, and general improvement of the people.”³¹⁷

³¹⁶ Ch. Empl. Comm., V. Rep.,” p. ix., n. 28.

³¹⁷ I.c., p. xxv., n. 165–167. As to the advantages of large scale, compared with small scale, industries, see “Ch. Empl. Comm., III. Rep.,” p. 13, n. 144, p. 25, n. 121, p. 26, n. 125, p. 27, n. 140, etc.

::23516–517:2:622:1–624:2:491:1–493:2: The history of the signing of the two acts:

494 In its final report the Commission proposes to subject to the Factory Act more than 1,400,000 children, young persons, and women, of which number about one half are exploited in small industries and by the so-called home-work.³¹⁸ It says,

Kraft der Jungen erschöpft, deren voller Vorteil uns gebührt.“³¹⁵

³¹³ I.c. p. 27, 32.

³¹⁴ Massenhafte Belege dazu in den „Rep. of Insp. of Fact.“.

³¹⁵ „Child. Empl. Comm., V. Rep.“, p. X, n. 35.

515:2–3 Herr J. Simpson (Paper-Box Bag maker, London) erklärt den Kommissären der „Children Empl. Comm.“:

„Er wolle jede Petition für Einführung der Fabrikakte unterzeichnen. Wie es sei, fühle er sich stets rastlos des Nachts (he always felt restless at night), nach Schluß seiner Werkstatt, bei dem Gedanken, daß andre länger arbeiten ließen und ihm Aufträge vor der Nase wegschnappten.“³¹⁶ „Es wäre ein Unrecht“, sagt die „Child. Empl. Comm.“ zusammenfassend, „gegen die größten Arbeitsanwender, ihre Fabriken der Regulation zu unterwerfen, während in ihrem eignen Geschäftszweig der Kleinbetrieb keiner gesetzlichen Beschränkung der Arbeitszeit unterliegt. Zur Ungerechtigkeit ungleicher Konkurrenzbedingungen in bezug auf die Arbeitsstunden bei Ausnahme kleinerer Werkstätten käme noch der andre Nachteil für die größten Fabrikanten hinzu, daß ihre Zufuhr von jugendlicher und weiblicher Arbeit abgelenkt würde nach den vom Gesetz verschonten Werkstätten. Endlich gäbe dies Anstoß zur Vermehrung der kleineren Werkstätten, die fast ausnahmslos die mindest günstigen für Gesundheit, Komfort, Erziehung und allgemeine Verbesserung des Volks sind.“³¹⁷

³¹⁶ I.c. p. IX, n. 28.

³¹⁷ I.c. p. XXV, n. 165–167. Vgl. über die Vorzüge des Großbetriebes verglichen mit dem Zwergebetrieb „Child. Empl. Comm., III. Rep.“, p. 13, n. 144; p. 25, n. 121; p. 26, n. 125; p. 27, n. 140 usw.

516:1–2 In ihrem Schlußbericht schlägt die „Children’s Employment Commission“ vor, über 1 400 000 Kinder, junge Personen und Weiber, wovon ungefähr die Hälfte vom Kleinbetrieb und der Hausarbeit exploitiert wird, dem Fabrikakt zu unterwerfen.³¹⁸

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“But if it should seem fit to Parliament to place the whole of that large number of children, young persons and females under the protective legislation above adverted to . . . it cannot be doubted that such legislation would have a most beneficent effect, not only upon the young and the feeble, who are its more immediate objects, but upon the still larger body of adult workers, who would in all these employments, both directly and indirectly, come immediately under its influence. It would enforce upon them regular and moderate hours; it would lead to their places of work being kept in a healthy and cleanly state; it would therefore husband and improve that store of physical strength on which their own well-being and that of the country so much depends; it would save the rising generation from that overexertion at an early age which undermines their constitutions and leads to premature decay; finally, it would ensure them—at least up to the age of 13—the opportunity of receiving the elements of education, and would put an end to that utter ignorance . . . go faithfully exhibited in the Reports of our Assistant Commissioners, and which cannot be regarded without the deepest pain, and a profound sense of national degradation.”³¹⁹

³¹⁸ The trades proposed to be brought under the Act were the following: Lace-making, stocking-weaving, straw-plaiting, the manufacture of wearing apparel with its numerous subdivisions, artificial flower-making, shoemaking, hat-making, glove-making, tailoring, all metal works, from blast furnaces down to needleworks, etc., paper-mills, glassworks, tobacco factories, India-rubber works, braid-making (for weaving), hand-carpetmaking, umbrella and parasol making, the manufacture of spindles and spools, letterpress printing, book-binding, manufacture of stationery (including paper bags, cards, coloured paper, etc.), rope-making, manufacture of jet ornaments, brick-making, silk manufacture by hand, Coventry weaving, salt works, tallow chandiers, cement works, sugar refineries, biscuit-making, various industries connected with timber, and other mixed trades.

³¹⁹ I.c., p. xxv., n. 169.

495:1–2 The Tory Cabinet/fn239 announced in the Speech from the Throne,

„Sollte“, sagt sie, „das Parlament unsren Vorschlag in seinem ganzen Umfang annehmen, so ist es zweifellos, daß solche Gesetzgebung den wohlthätigsten Einfluß ausüben werde, nicht nur auf die Jungen und Schwachen, mit denen sie sich zunächst beschäftigt, sondern auf die noch größere Masse von erwachsenen Arbeitern, die direkt“ (Weiber) „und indirekt“ (Männer) „unter ihren Wirkungskreis fallen. Sie würde ihnen regelmäßige und ermäßigte Arbeitsstunden aufzwingen; sie würde den Vorrat physischer Kraft, wovon ihr eignes Wohlergehen und das des Landes so sehr abhängt, erhalten und häufen; sie würde die aufsprössende Generation vor der Überanstrengung in frühem Alter schützen, welche ihre Konstitution untergräbt und zu vorzeitigem Verfall führt; sie würde schließlich, wenigstens bis zum 13. Jahr, die Gelegenheit des Elementarunterrichts bieten und damit der unglaubliche Unwissenheit ein Ende machen, die so treu in den Kommissionaberichten geschildert ist und nur mit qualvollster Empfindung und dem tiefen Gefühl nationaler Erniedrigung betrachtet werden kann.“³¹⁹

³¹⁸ Die zu maßregelnden Industriezweige sind: Spitzenmanufaktur, Strumpfwirkerei, Strohflechten, Manufaktur von Wearing Apparel mit ihren zahlreichen Arten, künstliche Blumenmacherei, Schuh-, Hut- und Handschuhmacherei, Schneiderei, alle Metallfabriken, von den Hochöfen bis zu den Nadelfabriken usw., Papierfabrik, Glasmanufaktur, Tabaksmanufaktur, India-Rubber Werke, Litzenfabrikation (für die Weberei), Handteppich-Weberei, Regenschirm- und Parasolmanufaktur, Fabrikation von Spindeln und Spulen, Buchdruckerei, Buchbindeerei, Schreibmaterialienhandel (Stationery, dazu gehörig Verfertigung von Pappierschachteln, Karten, Papierfärben usw.), Seilerei, Manufaktur von Gagatschmuck, Ziegeleien, Hand-Seidenmanufaktur, Coventry-Weberei, Salz-, Talglicht- und Zementierwerke, Zuckerraffinerie, Zwiebackmachen, verschiedene Holz- und andre vermischte Arbeiten.

³¹⁹ I.c. p. XXV, n. 169.

516:3–517:1 Das Toryministerium kündigte in der Thronrede vom 5. Februar 1867

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on February 5, 1867, that it had framed the proposals of the Industrial Commission of Inquiry^{319a} into Bills. To get that far, another twenty years of *experimentum in corpore vili* had been required. Already in 1840 a Parliamentary Commission of Inquiry on the labor of children had been appointed. Its Report, in 1842, unfolded, in the words of Nassau W. Senior,

“the most frightful picture of avarice, selfishness and cruelty on the part of masters and of parents, and of juvenile and infantile misery, degradation and destruction ever presented . . . It may be supposed that it describes the horrors of a past age. But there is unhappily evidence that those horrors continue as intense as they were. A pamphlet published by Hardwicke about 2 years ago states that the abuses complained of in 1842, are in full bloom at the present day. It is a strange proof of the general neglect of the morals and health of the children of the working-class, that this report lay unnoticed for 20 years, during which the children, ‘bred up without the remotest sign of comprehension as to what is meant by the term morals, who had neither knowledge, nor religion, nor natural affection,’ were allowed to become the parents of the present generation.”³²⁰

/fno239 Here (from “The Tory Cabinet . . . to “Nassau W. Senior”) the English text has been altered in conformity with the 4th German edition.—Ed.

^{319a} The Factory Acts Extension Act was passed on August 12, 1867. It regulates all foundries, smithies, and metal manufactories, including machine shops; furthermore glass-works, paper mills, gutta-percha and India-rubber works, tobacco manufactories, letterpress printing and book-binding works, and, lastly, all workshops in which more than 50 persons are employed. The Hours of Labor Regulation Act, passed on August 17, 1867, regulates the smaller workshops and the so-called domestic industries. I shall revert to these Acts and to the new Mining Act of 1872 in Volume II.

³²⁰ Senior, “Social Science Congress,” pp. 55–58.

495:3 The social conditions having undergone a change, Parliament could not venture to shelve the demands of the Commission of 1862, as it had done those of the

an, daß es die Vorschläge^{319a} der industriellen Untersuchungskommission in „Bills“ formuliert habe. Dazu hatte es eines neuen zwanzigjährigen Experimentum in corpore vili bedurft. Bereits im Jahre 1840 war eine parlamentarische Kommission zur Untersuchung über Kinderarbeit ernannt worden. Ihr Bericht von 1842 entrollte nach den Worten N. W. Seniors

„das furchtbarste Gemälde von Habsucht, Selbstsucht und Grausamkeit der Kapitalisten und Eltern, von Elend, Degradation und Zerstörung der Kinder und jungen Personen, das jemals das Auge der Welt schlug . . . Man wähnt vielleicht, der Bericht beschreibe die Greuel eines vergangenen Zeitalters. Leider aber liegen Berichte vor, daß diese Greuel fort dauern, so intensiv wie je. Eine vor zwei Jahren von Hardwicke veröffentlichte Broschüre erklärt, die 1842 gerügten Mißbräuche stehen heutzutage“ (1863) „in voller Blüte . . . Dieser Bericht“ (von 1842) „lag unbeachtet zwanzig Jahre lang, während deren man jenen Kindern, herangewachsen ohne die geringste Ahnung weder von dem, was wir Moral nennen, noch von Schulbildung, Religion oder natürlicher Familienliebe—diesen Kindern erlaubte man, die Eltern der jetzigen Generation zu werden.“³²⁰

^{319a} Der Factory Acts Extension Act ging durch 12. August 1867. Er reguliert alle Metall-Gießereien, -Schmieden und -Manufakturen, mit Einschluß der Maschinenfabriken, ferner Glas-, Papier-, Guttapercha-, Kautschuk-, Tabakmanufakturen, Buchdruckereien, Buchbindereien, endlich sämtliche Werkstätten, worin mehr als 50 Personen beschäftigt sind.—Der Hours of Labour Regulation Act, passiert 17. August 1867, reguliert die kleinern Werkstätten und die sog. Hausarbeit.—Ich komme auf diese Gesetze, auf den neuen Mining Act von 1872 etc. im II. Band zurück.

³²⁰ Senior, „Social Science Congress“, p. 55–58.

517:2 Inzwischen hatte die gesellschaftliche Lage sich geändert. Das Parlament wagte nicht, die Forderungen der Kommission von 1863 ebenso zurückzuweisen

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Commission of 1840. Hence in 1864, when the Commission had not yet published more than a part of its reports, the earthenware industries (including the potteries), makers of paperhangings, matches, cartridges, and caps, and fustian cutters were made subject to the Acts in force in the textile industries. In the Speech from the Throne, on 5th February, 1867, the Tory Cabinet of the day announced the introduction of Bills, founded on the final recommendations of the Commission, which had completed its labors in 1866.

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495:4/o On the 15th August, 1867, the Factory Acts Extension Act, and on the 21st August, the Workshops' Regulation Act received the Royal Assent; the former Act having reference to large industries, the latter to small.

496:1 The former applies to blast-furnaces, iron' and copper mills, foundries, machine shops, metal manufactories, gutta-percha works, paper mills, glass-works, tobacco manufactories, letter-press printing (including newspapers), book-binding, in short to all industrial establishments of the above kind, in which 50 individuals or more are occupied simultaneously, and for not less than 100 days during the year.

496:2–6 To give an idea of the extent of the sphere embraced by the Workshops' Regulation Act in its application, we cite from its interpretation clause, the following passages:

“*Handicraft* shall mean any manual labor exercised by way of trade, or for purposes of gain in, or incidental to, the making any article or part of an article, or in, or incidental to, the altering, repairing, ornamenting, finishing, or otherwise adapting for sale any article.”

“*Workshop* shall mean any room or place whatever in the open air or undercover, in which any handicraft is carried on by any child, young person, or woman, and to which and over which the person by whom such child, young person, or woman is employed,

wie seinerzeit die von 1842. Daher wurden schon 1864, als die Kommission erst einen Teil ihrer Berichte veröffentlicht hatte, die Erdenwaren-Industrie (einschließlich der Töpferei), die Fabrikation von Tapeten, Zündhölzern, Patronen und Zündhütchen sowie das Samtscheren unter die für Textilindustrie gültigen Gesetze gestellt. In der Thronrede von 5. Februar 1867 kündigte das damalige Torykabinett weitere Bills an, gegründet auf die Schlußvorschläge der Kommission, die inzwischen 1866 ihr Werk vollendet hatte.

Factory Acts Extension Act (Big factories)

517:3 Am 15. August 1867 erhielt der Factory Acts Extension Act und am 21. August der Workshops' Regulation Act die königliche Bestätigung; der erstre Akt regelt die großen, der letztre die kleinen Geschäftszeige.

517:4 Der Factory Acts Extension Act reguliert die Hochöfen, Eisen- und Kupferwerke, Gießereien, Maschinenfabriken, Metallwerkstätten, Fabriken für Guttapercha, Papier, Glas, Tabak, ferner Druckereien und Buchbindereien und überhaupt alle industriellen Werkstätten dieser Art, worin 50 oder mehr Personen gleichzeitig während mindestens 100 Tagen im Jahr beschäftigt werden.

518:1–5 Um eine Vorstellung zu geben von der Ausdehnung des von diesem Gesetz umfaßten Gebiets, folgen hier einige der darin festgestellten Definitionen:

„*Handwerk* soll“ (in diesem Gesetz) „bedeuten: irgendwelche Handarbeit, geschäftsmäßig oder zum Erwerb betrieben bei, oder gelegentlich, der Verfertigung, Veränderung, Verzierung, Reparatur oder Fertigstellung zum Verkauf irgendeines Artikels oder eines Teils davon.“

„*Werkstatt* soll bedeuten: irgendwelche Stube oder Örtlichkeit, eingedeckt oder unter freiem Himmel, worin ein „Handwerk“ betrieben wird von irgendeinem Kind, jugendlichen Arbeiter oder Frauenzimmer und worüber derjenige, der solches Kind, jugendlichen Arbeiter

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has the right of access and control.”

“*Employed* shall mean occupied in any handicraft, whether for wages or not, under a master or under a parent as herein defined.”

“*Parent* shall mean parent, guardian, or person, having the custody of, or control over, any ... child or young person.”

496:7–8 Clause 7, which imposes a penalty for employment of children, young persons, and women, contrary to the provisions of the Act, subjects to fines, not only the occupier of the workshop, whether parent or not, but even

“the parent of, or the person deriving any direct benefit from the labor of, or having the control over, the child, young person or woman.”

Workshops regulation Act (Small workshops)

496:9 The Factory Acts Extension Act, which affects the large establishments, derogates from the Factory Act by a crowd of vicious exceptions and cowardly compromises with the masters.

496:10/o The Workshops’ Regulation Act, wretched in all its details, remained a dead letter in the hands of the municipal and local authorities who were charged with its execution. When, in 1871, Parliament withdrew from them this power, in order to confer it on the Factory Inspectors, to whose province it thus added by a single stroke more than one hundred thousand workshops, and three hundred brickworks, care was taken at the same time not to add more than eight assistants to their already undermanned staff.³²¹

³²¹ The “personnel” of this staff consisted of 2 inspectors, 2 assistant inspectors and 41 sub-inspectors. Eight additional sub-inspectors were appointed in 1871. The total cost of administering the Acts in England, Scotland, and Ireland amounted for the year 1871–72 to no more than £25,347, inclusive of the law expenses incurred by prosecutions of offending masters.

oder Frauenzimmer beschäftigt, das Recht des Zutritts und der Kontrolle hat.“

„*Beschäftigt* soll bedeuten: tätig in einem „Handwerk“, ob gegen Lohn oder nicht, unter einem Meister oder einem der Eltern, wie unten näher bestimmt.“

„*Eltern* soll bedeuten: Vater, Mutter, Vormund oder andre Person, die die Vormundschaft oder Kontrolle über irgendein ... Kind oder einen jugendlichen Arbeiter hat.“

518:6–7 Klausel 7, die Strafklausel für Beschäftigung von Kindern, jugendlichen Arbeitern und Frauenzimmern entgegen den Bestimmungen dieses Gesetzes, setzt Geldstrafen fest, nicht nur für den Inhaber der Werkstatt, ob einer Eltern oder nicht, sondern auch für

„die Eltern oder andre Personen, die das Kind, den jugendlichen Arbeiter oder das Frauenzimmer unter Obhut haben oder direkten Vorteil aus dessen Arbeit ziehen“.

518:8 Der Factory Acts Extension Act, der die großen Etablissements trifft, steht zurück gegen den Fabrikakt durch eine Menge elender Ausnahmsbestimmungen und feiger Kompromisse mit den Kapitalisten.

518:9 Der Workshops’ Regulation Act, erbärmlich in allen seinen Einzelheiten, blieb ein toter Buchstabe in der Hand der mit seiner Ausführung beauftragten städtischen und Lokalbehörden. Als das Parlament ihnen 1871 diese Vollmacht entzog, um sie den Fabrikinspektoren zu übertragen, deren Aufsichtsbezirk es so mit einem Schlage um mehr als 100 000 Werkstätten und allein 300 Ziegeleien vergrößerte, wurde ihr Personal sorgsamlichst um nur acht Assistenten vermehrt, wo es doch schon bisher viel zu schwach besetzt war.³²¹

³²¹ Das Personal der Fabrikinspektion bestand aus 2 Inspektoren, 2 Hilfsinspektoren und 41 Subinspektoren. Acht fernere Subinspektoren wurden 1871 ernannt. Die Gesamtkosten der Vollstreckung der Fabrikgesetze in England, Schottland und Irland beliefen sich 1871/72 auf nur 25 347 Pfd.St., einschließlich der Gerichtskosten bei Prozessen gegen Übertretungen.

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↓ Contradiction between the necessity to impose the acts by parliament and the hesitancy to carry them out (Is this the contradiction between the class interests and the individual interests of the capitalists?) No! Parliament was forced by the working class to pass these acts!

497:1 What strikes us, then, in the English legislation of 1867, is, on the one hand, the necessity imposed on the parliament of the ruling classes, of adopting in principle measures so extraordinary, and on so great a scale, against the excesses of capitalistic exploitation; and on the other hand, the hesitation, the repugnance, and the bad faith, with which it lent itself to the task of carrying those measures into practice.

↓ Mining acts. They were very weak because in this case capitalists and landowners had the same interests.

497:2 The Inquiry Commission of 1862 also proposed a new regulation of the mining industry, an industry distinguished from others by the exceptional characteristic that the interests of landlord and capitalist there join hands. The antagonism of these two interests had been favorable to Factory legislation, while on the other hand the absence of that antagonism is sufficient to explain the delays and chicanery of the legislation on mines.

↑ More about this antagonism between the ruling classes in .
Now long Illustrations.

497:3 The Inquiry Commission of 1840 had made revelations so terrible, so shocking, and creating such a scandal all over Europe, that to salve its conscience Parliament passed the Mining Act of 1842, in which it limited itself to forbidding the employment underground in mines of children under 10 years of age and females.

497:4 Then another Act, The Mines' Inspecting Act of 1860, provides that mines shall be inspected by public officers nominated specially for that purpose, and that boys between the ages of 10 and 12 years shall not be employed, unless they have a school certificate, or go to school for a certain number of hours. This Act was a com-

519:1 Was also in dieser englischen Gesetzgebung von 1867 auffällt, ist einerseits die dem Parlament der herrschenden Klassen aufgezwungne Notwendigkeit, so außerordentliche und ausgedehnte Maßregeln gegen die Übergriffe der kapitalistischen Exploitation im Prinzip anzunehmen; andererseits die Halbheit, der Widerwille und die mala fides, womit es diese Maßregeln dann wirklich ins Leben rief.

519:2 Die Untersuchungskommission von 1862 schlug ebenfalls eine neue Regulierung der Bergwerksindustrie vor, einer Industrie, die sich von allen andern dadurch unterscheidet, daß bei ihr die Interessen von Grundbesitzern und industriellen Kapitalisten Hand in Hand gehn. Der Gegensatz dieser beiden Interessen hatte die Fabrikgesetzgebung begünstigt, die Abwesenheit dieses Gegensatzes reicht hin, die Verschleppung und Schikanen bei der Bergwerksgesetzgebung zu erklären.

519:3 Die Untersuchungskommission von 1840 hatte so schauderhafte und empörende Enthüllungen gemacht und einen solchen Skandal vor ganz Europa hervorgerufen, daß das Parlament sein Gewissen salviairen mußte durch den Mining Act von 1842, worin es sich darauf beschränkte, die Arbeit unter Tag von Weibern und von Kindern unter 10 Jahren zu verbieten.

519:4 Dann kam 1860 der Mines' Inspection Act, wonach Bergwerke von speziell dazu ernannten öffentlichen Beamten inspiziert werden, und Knaben zwischen 10 und 12 Jahren nicht beschäftigt werden sollen, außer wenn sie im Besitz eines Schulzeugnisses sind oder eine gewisse Anzahl Stunden die Schule besuchen. Dieser Akt

plete dead letter owing to the ridiculously small number of inspectors, the meagreness of their powers, and other causes that will become apparent as we proceed.

497:5/o One of the most recent Blue books on mines is the “Report from the Select Committee on Mines, together with etc. Evidence, 23rd July, 1866.” This Report is the work of a Parliamentary Committee selected from members of the House of Commons, and authorised to summon and examine witnesses. It is a thick folio volume in which the Report itself occupies only five lines to this effect; that the committee has nothing to say, and that more witnesses must be examined!

498:1 The mode of examining the witnesses reminds one of the cross-examination of witnesses in English courts of justice, where the advocate tries, by means of impudent, unexpected, equivocal and involved questions, put without connexion, to intimidate, surprise, and confound the witness, and to give a forced meaning to the answers extorted from him. In this inquiry the members of the committee themselves are the cross-examiners, and among them are to be found both mine-owners and mine exploiters; the witnesses are mostly working coal miners. The whole farce is too characteristic of the spirit of capital, not to call for a few extracts from this Report. For the sake of conciseness I have classified them. I may also add that every question and its answer are numbered in the English Blue books.

498:2–499:0 1. Employment in mines of boys of 10 years and upwards.—In the mines the work, inclusive of going and returning, usually lasts 14 or 15 hours, sometimes even from 3, 4 and 5 o’clock a.m., till 5 and 6 o’clock p.m. (n. 6, 452, 83). The adults work in two shifts, of eight hours each; but there is no alternation with the boys, on account of the expense (n. 80, 203, 204). The younger boys are chiefly

blieb durchaus ein toter Buchstabe infolge der lächerlich geringen Anzahl der ernannten Inspektoren, der Winzigkeit ihrer Befugnisse und anderer Ursachen, die sich im Verlauf näher ergeben werden.

519:5 Eins der neusten Blaubücher über Bergwerke ist der „Report from the Select Committee on Mines, together with . . . Evidence, 23 July 1866“. Er ist das Werk eines Ausschusses von Unterhausmitgliedern, bevollmächtigt, Zeugen vorzuladen und zu verhören; ein dicker Folioband, worin der „Report“ selbst nur fünf Zeilen umfaßt, des Inhalts: daß der Ausschuß nichts zu sagen weiß und daß noch mehr Zeugen verhört werden müssen!

519:6/o Die Art der Zeugenexamination erinnert an die cross examinations vor den englischen Gerichten, wo der Advokat durch unverschämte, sinnverwirrende Kreuz- und Querfragen den Zeugen aus der Fassung zu bringen und ihm die Worte im Mund zu verdrehn sucht. Die Advokaten hier sind die parlamentarischen Examinatoren selbst, darunter Minen-Eigner und Exploiteurs; die Zeugen Minenarbeiter, meist in Kohlenbergwerken. Die ganze Farce ist zu charakteristisch für den Geist des Kapitals, um hier nicht einige Auszüge zu geben. Zur leichteren Übersicht gebe ich die Resultate der Untersuchung usw. in Rubriken. Ich erinnere, daß Frage und obligate Antwort in den englischen Blue Books numeriert sind und daß die Zeugen, deren Aussagen hier zitiert werden, Arbeiter in Kohlenbergwerken.

520:1–2 1. Beschäftigung der Jungen vom 10. Jahr an in den Minen. Die Arbeit nebst obligatem Gang von und zu den Bergwerken dauert in der Regel 14 bis 15 Stunden, ausnahmsweise länger, von 3, 4, 5 Uhr morgens bis 4 und 5 Uhr abends. (n. 6, 452, 83.) Die erwachsenen Arbeiter arbeiten in zwei Gängen oder 8 Stunden, aber kein solcher Wechsel für die Jungen, um die Kosten zu sparen. (n. 80, 203, 204.) Die

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employed in opening and shutting the ventilating doors in the various parts of the mine; the older ones are employed on heavier work. in carrying coal, etc. (n. 122, 739, 1747). They work these long hours underground until their 18th or 22nd year, when they are put to miner's work proper (n. 161). Children and young persons are at present worse treated, and harder worked than at any previous period (n. 1663–1667). The miners demand almost unanimously an act of Parliament prohibiting the employment in mines of children under 14. And now Hussey Vivian (himself an exploiter of mines) asks:

“Would not the opinion of the workman depend upon the poverty of the workman's family?” Mr. Bruce: “Do you not think it would be a very hard case, where a parent had been injured, or where he was sickly, or where a father was dead, and there was only a mother, to prevent a child between 12 and 14 earning 1s. 7d. a day for the good of the family? ... You must lay down a general rule? ... Are you prepared to recommend legislation which would prevent the employment of children under 12 and 14, whatever the state of their parents might be?” “Yes.” (ns. 107–110). Vivian: “Supposing that an enactment were passed preventing the employment of children under the age of 14, would it not be probable that ... the parents of children would seek employment for their children in other directions, for instance, in manufacture?” “Not generally I think” (n. 174). Kinnaid: “Some of the boys are keepers of doors?” “Yes.” “Is there not generally a very great draught every time you open a door or close it?” “Yes, generally there is.” “It sounds a very easy thing, but it is in fact rather a painful one?” “He is imprisoned there just the same as if he was in a cell of a gaol.” Bourgeois Vivian: “Whenever a boy is furnished with a lamp cannot he read?” “Yes, he can read, if he finds himself in candles ... I suppose he would be found fault with if he were discovered reading; he is there to mind his business, he has a duty to perform, and he has to attend to it in the first place, and I do not think it would be allowed down the pit.” (ns. 139, 141, 143, 158, 160).

jungen Kinder hauptsächlich verwandt zum Öffnen und Schließen der Zugtüren in den verschiedenen Abteilungen des Bergwerks, die ältern zu schwerer Arbeit, Kohlentransport usw. (n. 122, 739, 740.) Die langen Arbeitsstunden unter der Erde dauern bis zum 18. oder 22. Jahr, wann der Übergang zur eigentlichen Minenarbeit stattfindet. (n. 161.) Die Kinder und jungen Personen werden heutzutage härter abgeplackt als zu irgendeiner früheren Periode. (n. 1663–1667.) Die Minenarbeiter verlangen fast einstimmig einen Parlamentsakt zum Verbot der Minenarbeit bis zum 14. Jahr. Und nun fragt Hussey Vivian (selbst minenexploiteur):

„Hängt dies Verlangen nicht von der größeren oder geringeren Armut der Eltern ab?“—Und Mr. Bruce: „Wäre es nicht hart, wo der Vater tot oder verstümmelt usw., der Familie diese Ressource zu entziehen? Und es muß doch eine allgemeine Regel herrschen. Wollt Ihr in allen Fällen die Beschäftigung der Kinder bis zum 14. Jahr unter der Erde verbieten?“ Antwort: „In allen Fällen.“ (n. 107–110.) Vivian: „Wenn die Arbeit vor 14 Jahren in den Minen verboten, würden die Eltern die Kinder nicht in Fabriken usw. schicken?“—In der Regel, nein.“ (n. 174.) Arbeiter: „Das Auf- und Zuschließen der Türen sieht leicht aus. Es ist ein sehr qualvolles Geschäft. Vom beständigen Zug abgesehn, ist der Junge gefangengesetzt, ganz so gut wie in einer dunklen Kerkerzelle.“ Bourgeois Vivian: „Kann der Junge nicht lesen während der Türwacht, wenn er ein Licht hat?“—Erstens müßte er sich die Kerzen kaufen. Aber außerdem würde es ihm nicht erlaubt werden. Er ist da, um auf sein Geschäft aufzupassen, er hat eine Pflicht zu erfüllen. Ich habe nie einen Jungen in der Grube lesen sehn.“ (n. 139, 141–160.)

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499:1–500:0 II. Education.—The working miners want a law for the compulsory education of their children, as in factories. They declare the clauses of the Act of 1860, which require a school certificate to be obtained before employing boys of 10 and 12 years of age, to be quite illusory. The examination of the witnesses on this subject is truly droll.

“Is it (the Act) required more against the masters or against the parents?” “It is required against both I think.” “You cannot say whether it is required against one more than against the other?” “No; I can hardly answer that question.” (ns. 115, 116.) “Does there appear to be any desire on the part of the employers that the boys should have such hours as to enable them to go to school?” “No; the hours are never shortened for that purpose.” (n. 137.) Mr. Kinnaird: “Should you say that the colliers generally improve their education; have you any instances of men who have, since they began to work, greatly improved their education, or do they not rather go back, and lose any advantage that they may have gained?” “They generally become worse: they do not improve; they acquire bad habits; they get on to drinking and gambling and such like, and they go completely to wreck.” (n. 211.) “Do they make any attempt of the kind (for providing instruction) by having schools at night?” “There are few collieries where night schools are held, and perhaps at those collieries a few boys do go to those schools; but they are so physically exhausted that it is to no purpose that they go there.” (n. 454.) “You are then,” concludes the bourgeois, “against education?” “Most certainly not; but,” etc. (n. 443.) “But are they (the employers) not compelled to demand them (school certificates)?” “By law they are; but I am not aware that they are demanded by the employers.” “Then it is your opinion, that this provision of the Act as to requiring certificates, is not generally carried out in the collieries?” “It is not carried out.” (ns. 443, 444.) “Do the men take a great interest in this question (of education)?” “The majority of them do.” (n. 717.) “Are they very anxious to see the law enforced?” “The majority are.” (n. 718.) “Do you think that in this country any law that you pass ... can really

520:3–521 2. Erziehung. Die Minenarbeiter verlangen Gesetz für Zwangsunterricht der Kinder, wie in den Fabriken. Sie erklären die Klausel des Akts von 1860, wonach Erziehungszertifikat zur Verwendung der Jungen von 10–12 Jahren erfordert, für rein illusorisch. Das „peinliche“ Verhörverfahren der kapitalistischen Instruktionsrichter wird hier wahrhaft drollig.

(n. 115.) „Ist der Akt mehr nötig gegen Anwender oder Eltern?—Gegen beide.“ (n. 116.) „Mehr gegen den einen als den andern?—Wie soll ich das beantworten?“ (n. 137.) „Zeigen die Anwender irgendein Verlangen, die Arbeitsstunden dem Schulunterricht anzupassen?—Niemals.“ (n. 211.) „Verbessern die Minenarbeiter hinterher ihre Erziehung?—Sie verschlechtern sich im allgemeinen; sie nehmen böse Gewohnheiten an; sie verlegen sich auf Trunk und Spiel und dergleichen und werden ganz und gar schiffbrüchig.“ (n. 454.) „Warum nicht die Kinder in Abendschulen schicken?—In den meisten Kohlendistrikten existieren keine. Aber die Hauptsache ist, von der langen Überarbeit sind sie so erschöpft, daß ihnen die Augen vor Müdigkeit zufallen.“ „Also“, schließt der Bourgeois, „Ihr seid gegen Erziehung?—Beileibe nicht, aber usw.“ (n. 443.) „Sind die Minenbesitzer usw. nicht durch den Akt von 1860 gezwungen, Schulzertifikate zu verlangen, wenn sie Kinder zwischen 10 und 12 Jahren anwenden?—Durch das Gesetz, ja, aber die Anwender tun es nicht.“ (n. 444.) „Nach Eurer Ansicht ist diese Gesetzklausel nicht allgemein ausgeführt?—Sie wird gar nicht ausgeführt.“ (n. 717.) „Interessieren sich die Minenarbeiter sehr für die Erziehungsfrage?—Die große Mehrzahl.“ (n. 718.) „Sind sie ängstlich für Durchführung des Gesetzes?—Die große Mehrzahl.“ (n. 720.) „Warum denn erzwingen sie seine Durchführung nicht?—Mancher Arbeiter wünscht, Jungen ohne Schulzertifikat zu verweigern, aber er wird ein gezeichneter Mann (a marked man).“ (n. 721.) „Gezeichnet durch wen?—Durch seinen Anwender.“ (n. 722.) „Ihr glaubt doch nicht etwa, daß die Anwender einen Mann wegen Gehorsams gegen das Gesetz verfolgen würden?—Ich glaube, sie würden es tun.“ (n. 723.) „Warum verweigern die Arbeiter nicht, sol-

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be effectual unless the population themselves assist in putting it into operation?" "Many a man might wish to object to employing a boy, but he would perhaps become marked by it." (n. 720.) "Marked by whom?" "By his employers." (n. 721.) "Do you think that the employers would find any fault with a man who obeyed the law ...?" "I believe they would." (n. 722.) "Have you ever heard of any workman objecting to employ a boy between 10 and 12, who could not write or read?" "It is not left to men's option." (n. 123.) "Would you call for the interference of Parliament?" "I think that if anything effectual is to be done in the education of the colliers' children, it will have to be made compulsory by Act of Parliament." (n. 1634.) "Would you lay that obligation upon the colliers only, or all the workpeople of Great Britain?" "I came to speak for the colliers." (n. 1636.) "Why should you distinguish them (colliery boys) from other boys?" "Because I think they are an exception to the rule." (n. 1638.) "In what respect?" "In a physical respect." (n. 1639.) "Why should education be more valuable to them than to other classes of lads?" "I do not know that it is more valuable; but through the over-exertion in mines there is less chance for the boys that are employed there to get education, either at Sunday schools, or at day schools." (n. 1640.) "It is impossible to look at a question of this sort absolutely by itself?" (n. 1644.) "Is there a sufficiency of schools?"—"No" ... (n. 1646.) "If the State were to require that every child should be sent to school, would there be schools for the children to go to?" "No; but I think if the circumstances were to spring up, the schools would be forthcoming." (n. 1647.) "Some of them (the boys) cannot read and write at all, I suppose?" "The majority cannot. The majority of the men themselves cannot." (ns. 705, 725.)

500:1–501:0 III. *Employment of women.*— Since 1842 women are no more employed underground, but are occupied on the surface in loading the coal, etc., in drawing the tubs to the canals and railway waggons, in sorting, etc. Their numbers have considerably increased during the last three or four years. (n. 1727.) They are mostly the wives, daughters, and widows of the working min-

che Jungen anzuwenden?—Es ist nicht ihrer Wahl überlassen." (n. 1634.) „Ihr verlangt Parlamentsintervention?—Wenn irgend etwas Wirksames für die Erziehung der Kinder der Grubenarbeiter geschehen soll, so muß sie durch Parlamentsakt zwangsmäßig gemacht werden.“ (n. 1636.) „Soll das für die Kinder aller Arbeiter von Großbritannien gelten oder nur für Grubenarbeiter?—Ich bin hier, um im Namen der Grubenarbeiter zu sprechen.“ (n. 1638.) „Warum Grubenkinder von andren unterscheiden?—Weil sie eine Ausnahme von der Regel bilden.“ (n. 1639.) „In welcher Hinsicht?—In physischer.“ (n. 1640.) „Warum sollte Erziehung für sie wertvoller sein als für Knaben von andern Klassen?—Ich sage nicht, daß sie wertvoller für sie ist, aber wegen ihrer Überarbeitung in den Minen haben sie weniger Chancen für Erziehung in Tags- und Sonntagsschulen.“ (n. 1644.) „Nicht wahr, es ist unmöglich, Fragen dieser Art absolut zu behandeln?“ (n. 1646.) „Sind genug Schulen in den Distrikten?—Nein.“ (n. 1647.) „Wenn der Staat verlangte, daß jedes Kind zur Schule geschickt, wo sollen denn die Schulen für alle die Kinder herkommen?—Ich glaube, sobald es die Umstände gebieten, werden die Schulen von selbst entspringen.“ „Die große Mehrzahl nicht nur der Kinder, sondern der erwachsenen Minenarbeiter kann weder schreiben noch lesen.“ (n. 705, 726.)

522:1–523:0 3. *Weiberarbeit.* Arbeiterinnen werden zwar seit 1842 nicht mehr unter, wohl aber über der Erde zum Aufladen der Kohlen usw., Schleppen der Kufen zu den Kanälen und Eisenbahnwagen, Sortieren der Kohlen usw. verbraucht. Ihre Anwendung hat sehr zugenommen in den letzten 3–4 Jahren. (n. 1727.) Es sind meist Weiber, Töchter und Witwen von Grubenar-

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ers, and their ages range from 12 to 50 or 60 years. (ns. 645, 1779.)

“What is the feeling among the working miners as to the employment of women?” “I think they generally condemn it.” (n. 648.) “What objection do you see to it?” “I think it is degrading to the sex.” (n. 649.) “There is a peculiarity of dress?” “Yes ... it is rather a man’s dress, and I believe in some cases, it drowns all sense of decency.” “Do the women smoke?” “Some do.” “And I suppose it is very dirty work?” “Very dirty.” “They get black and grimy?” “As black as those who are down the mines ... I believe that a woman having children (and there are plenty on the banks that have) cannot do her duty to her children.” (ns. 650–654, 701.) “Do you think that those widows could get employment anywhere else, which would bring them in as much wages as that (from 8s. to 10s. a week)?” “I cannot speak to that.” (n. 709.) “You would still be prepared, would you,” (flint-hearted fellow!) “to prevent their obtaining a livelihood by these means?” “I would.” (n. 710.) “What is the general feeling in the district ... as to the employment of women?” “The feeling is that it is degrading; and we wish as miners to have more respect to the fair sex than to see them placed on the pit bank ... Some part of the work is very hard; some of these girls have raised as much as 10 tons of stuff a day.” (ns. 1715, 1717.) “Do you think that the women employed about the collieries are less moral than the women employed in the factories?” “... the percentage of bad ones may be a little more ... than with the girls in the factories.” (n. 1237.) “But you are not quite satisfied with the state of morality in the factories?” “No.” (n. 1733.) “Would you prohibit the employment of women in factories also?” “No, I would not.” (n. 1734.) “Why not?” “I think it a more honourable occupation for them in the mills.” (n. 1735.) “Still it is injurious to their morality, you think?” “Not so much as working on the pit bank; but it is more on the social position I take it; I do not take it on its moral ground alone. The degradation, in its social bearing on the girls, is deplorable in the extreme. When these 400 or 500 girls become colliers’ wives, the men suffer greatly from this degradation, and it causes them to leave their homes and drink.” (n. 1736.) “You

beatern, vom 12. bis zum 50. und 60. Jahre. (n. 647, 1779, 1781.)

(n. 648.) „Was denken die Minenarbeiter von Beschäftigung von Weibern bei Bergwerken?—Sie verdammen sie allgemein.“ (n. 649.) „Warum?—Sie betrachten es erniedrigend für das Geschlecht ... Sie tragen eine Art von Mannskleidern. In vielen Fällen wird alle Scham unterdrückt. Manche Weiber rauchen. Die Arbeit ist so schmutzig wie die in den Gruben selbst. Darunter sind viele verheiratete Frauen, die ihre häuslichen Pflichten nicht erfüllen können.“ (n. 651 sqq., 701.) (n. 709.) „Können die Witwen ein so einträgliches Geschäft (8–10 sh. wöchentlich) anderswo finden?—Ich kann darüber nichts sagen.“ (n. 710.) „Und dennoch“ (Herz von Stein!) „seid Ihr entschlossen, ihnen diesen Lebensunterhalt abzuschneiden?—Sicher.“ (n. 1715.) „Woher diese Stimmung?—Wir, Minenarbeiter, haben zu viel Respekt für das schöne Geschlecht, um es zur Kohlengrube verdammt zu sehn ... Diese Arbeit ist größtenteils sehr schwer. Viele dieser Mädchen heben 10 Tonnen per Tag.“ (n. 1732.) „Glaubt Ihr, daß die in den Bergwerken beschäftigten Arbeiterinnen unmoralischer sind als die in den Fabriken beschäftigten?—Der Prozentsatz der Schlechten ist größer als unter den Fabrikmädchen.“ (n. 1733.) „Aber Ihr seid auch mit dem Stand der Moralität in den Fabriken nicht zufrieden?—Nein.“ (n. 1734.) „Wollt Ihr denn auch die Weiberarbeit in den Fabriken verbieten?—Nein, ich will nicht.“ (n. 1735.) „Warum nicht?—Sie ist für das weibliche Geschlecht ehrenvoller und passender.“ (n. 1736.) „Dennoch ist sie schädlich für ihre Moralität, meint Ihr?—Nein, lange nicht so sehr als die Arbeit an der Grube. Ich spreche übrigens nicht nur aus moralischen, sondern auch aus physischen und sozialen Gründen. Die soziale Degradation der Mädchen ist jammervoll und extrem. Wenn diese Mädchen Frauen der Minenarbeiter werden, leiden die Männer tief unter dieser Degradation, und es treibt sie von Haus und zum Soff.“ (n. 1737.) „Aber gälte nicht dasselbe für die bei Eisenwerken beschäftigten Weiber?—Ich kann nicht für andre Geschäftszweige sprechen.“ (n. 1740.) „Aber welcher Unterschied ist denn zwischen den bei Eisenwerken und Bergwerken beschäftigten Weibern?—Ich habe mich

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would be obliged to stop the employment of women in the ironworks as well, would you not, if you stopped it in the collieries?" "I cannot speak for any other trade." (n. 1737.) "Can you see any difference in the circumstances of women employed in ironworks, and the circumstances of women employed above ground in collieries?" "I have not ascertained anything as to that." (n. 1740.) "Can you see anything that makes a distinction between one class and the other?" "I have not ascertained that, but I know from house to house visitation, that it is a deplorable state of things in our district ..." (n. 1741.) "Would you interfere in every case with the employment of women where that employment was degrading?" "It would become injurious, I think, in this way: the best feelings of Englishmen have been gained from the instruction of a mother ..." (n. 1750.) "That equally applies to agricultural employments, does it not?" "Yes, but that is only for two seasons, and we have work all the four seasons." (n. 1751.) "They often work day and night, wet through to the skin, their constitution undermined and their health ruined." "You have not inquired into that subject perhaps?" "I have certainly taken note of it as I have gone along, and certainly I have seen nothing parallel to the effects of the employment of women on the pit bank ... It is the work of a man ... a strong man." (ns. 1753, 1793, 1794.) "Your feeling upon the whole subject is that the better class of colliers who desire to raise themselves and humanise themselves, instead of deriving help from the women, are pulled down by them?" "Yes." (n. 1808.)

501:1–2 After some further crooked questions from these bourgeois, the secret of their "sympathy" for widows, poor families, etc., comes out at last.

"The coal proprietor appoints certain gentlemen to take the oversight of the workings, and it is their policy, in order to receive approbation, to place things on the most economical basis they can, and these girls are employed at from 1s. up to 1s. 6d. a day, where a man at the rate of 2s. 6d. a day would have to be employed." (n. 1816.)

501:3–502:0 IV. *Coroner's inquests.*

nicht mit dieser Frage beschäftigt." (n. 1741.) „Könnt Ihr einen Unterschied zwischen der einen oder der andern Klasse entdecken?—Ich habe nichts darüber vergewissert, kenne aber durch Visite von Haus zu Haus den schmählichen Zustand der Dinge in unsrem Distrikt.“ (n. 1750.) „Hättet Ihr nicht große Lust, Weiberbeschäftigung überall abzuschaffen, wo sie degradierend ist?—Ja ... die besten Gefühle der Kinder müssen von mütterlicher Zucht herkommen.“ (n. 1751.) „Aber das paßt ja auch auf agrikole Beschäftigung der Weiber?—Die dauert nur zwei Saisons, bei uns arbeiten sie alle vier Saisons durch, manchmal Tag und Nacht, naß bis auf die Haut, ihre Konstitution geschwächt, ihre Gesundheit gebrochen.“ (n. 1753.) „Ihr habt die Frage“ (nämlich der Weiberbeschäftigung) „nicht allgemein studiert?—Ich habe um mich her geschaut und kann so viel sagen, daß ich nirgendwo etwas der weiblichen Beschäftigung an den Kohlengruben Paralleles gefunden habe. [n. 1793, 1794, 1808.] Es ist Mannsarbeit und Arbeit für starke Männer. Die beßre Klasse der Minenarbeiter, die sich zu heben und zu humanisieren sucht, statt irgend Stütze an ihren Weibern zu finden, wird durch sie heruntergezerrt.“

523:1–2 Nachdem die Bourgeois noch weiter in die Kreuz und Quere gefragt, kommt endlich das Geheimnis ihres „Mitleidens“ für Witwen, arme Familien usw. heraus:

„Der Kohleneigentümer ernennt gewisse Gentlemen zur Oberaufsicht und deren Politik ist es, um Beifall zu ernten, alles auf den möglichst ökonomischen Fuß zu setzen und die beschäftigten Mädchen erhalten 1 bis 1 sh. 6 d. täglich, wo ein Mann 2 sh. 6 d. erhalten müßte.“ (n. 1816.)

523:3–4 4. Totenschau-Juries.

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“With regard to coroner’s inquests in your district, have the workmen confidence in the proceedings at those inquests when accidents occur?” “No; they have not.” (n. 360.) “Why not?” “Chiefly because the men who are generally chosen, are men who know nothing about mines and such like.” “Are not workmen summoned at all upon the juries?” “Never but as witnesses to my knowledge.” “Who are the people who are generally summoned upon these juries?” “Generally tradesmen in the neighbourhood ... from their circumstances they are sometimes liable to be influenced by their employers ... the owners of the works. They are generally men who have no knowledge, and can scarcely understand the witnesses who are called before them, and the terms which are used and such like.” “Would you have the jury composed of persons who had been employed in mining?” “Yes, partly ... they (the workmen) think that the verdict is not in accordance with the evidence given generally.” (ns. 361, 364, 366, 368, 371, 375.) “One great object in summoning a jury is to have an impartial one, is it not?” “Yes, I should think so.” “Do you think that the juries would be impartial if they were composed to a considerable extent of workmen?” “I cannot see any motive which the workmen would have to act partially ... they necessarily have a better knowledge of the operations in connexion with the mine.” “You do not think there would be a tendency on the part of the workmen to return unfairly severe verdicts?” “No, I think not.” (ns. 378, 379, 380.)

502:1–2 *V. False weights and measures.*—The workmen demand to be paid weekly instead of fortnightly, and by weight instead of by cubical contents of the tubs; they also demand protection against the use of false weights, etc. (n. 1071.)

“If the tubs were fraudulently increased, a man could discontinue working by giving 14 days’ notice?” “But if he goes to another place, there is the same thing going on there.” (n. 1071.) “But he can leave that place where the wrong has been committed?” “It is general; wherever he goes, he has to submit to it.” (n. 1072.) “Could a man leave by giving 14 days’ notice?” “Yes.” (n. 1073.)

(n. 360.) „Mit Bezug auf die coroner’s inquests in Euren Distrikten, sind die Arbeiter zufrieden mit dem Gerichtsverfahren, wenn Unfälle vorkommen?—Nein, sie sind es nicht.“ (n. 361–375.) „Warum nicht?—Namentlich weil man Leute zu Juries macht, die absolut nichts von Minen wissen. Arbeiter werden nie zugezogen, außer als Zeugen. Im ganzen nimmt man Krämer aus der Nachbarschaft, welche unter dem Einfluß der Minenbesitzer, ihrer Kunden, stehn und nicht einmal die technischen Ausdrücke der Zeugen verstehen. Wir verlangen, daß Minenarbeiter einen Teil der Jury bilden. Im Durchschnitt steht der Urteilsspruch im Widerspruch zu den Zeugenaussagen.“ (n. 378.) „Sollen Juries nicht unparteiisch sein?—Ja.“ (n. 379.) „Würden die Arbeiter es sein?—Ich sehe keine Motive, warum sie nicht unparteiisch sein sollten. Sie haben Sachkenntnis.“ (n. 380.) „Aber würden sie nicht die Tendenz haben, im Interesse der Arbeiter ungerecht harte Urteile zu fällen?—Nein, ich glaube nicht.“

523:5–7 5. Falsches Maß und Gewicht usw. Die Arbeiter verlangen wöchentliche statt vierzehntägiger Zahlung, Maß nach Gewicht statt nach Kubikraum der Kufen, Schutz gegen die Anwendung falschen Gewichts usw.

(n. 1071.) „Wenn die Kufen fraudulent vergrößert werden, so kann ein Mann ja die Mine verlassen nach 14tägiger Kündigung?—Aber, wenn er zu einem andern Platz geht, findet er dasselbe.“ (n. 1072.) „Aber er kann den Platz doch verlassen, wo das Unrecht verübt wird?—Es ist allgemein herrschend.“ (n. 1073.) „Aber der Mann kann seinen jetzmaligen Platz nach 14tägiger Kündigung verlassen?—Ja.“

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And yet they are not satisfied!

502:3–503:2 VI. *Inspection of mines.*—Casualties from explosions are not the only things the workmen suffer from. (n. 234, sqq.)

“Our men complained very much of the bad ventilation of the collieries ... the ventilation is so bad in general that the men can scarcely breathe; they are quite unfit for employment of any kind after they have been for a length of time in connexion with their work; indeed, just at the part of the mine where I am working, men have been obliged to leave their employment and come home in consequence of that ... some of them have been out of work for weeks just in consequence of the bad state of the ventilation where there is not explosive gas ... there is plenty of air generally in the main courses, yet pains are not taken to get air into the workings where men are working.” “Why do you not apply to the inspector?” “To tell the truth there are many men who are timid on that point; there have been cases of men being sacrificed and losing their employment in consequence of applying to the inspector.” “Why is he a marked man for having complained?” “Yes ... And he finds it difficult to get employment in another mine?” “Yes.” “Do you think the mines in your neighbourhood are sufficiently inspected to insure a compliance with the provisions of the Act?” “No; they are not inspected at all ... the inspector has been down just once in the pit, and it has been going seven years ... In the district to which I belong there are not a sufficient number of inspectors. We have one old man more than 70 years of age to inspect more than 130 collieries.” “You wish to have a class of sub-inspectors?” “Yes.” (ns. 234, 241, 251, 254, 274, 275, 554, 276, 293.) “But do you think it would be possible for Government to maintain such an army, of inspectors as would be necessary to do all that you want them to do, without information from the men?” “No, I should think it would be next to impossible ...” “It would be desirable the inspectors should come oftener?” “Yes, and without being sent for.” (n. 280, 277.) “Do you not think that the effect of having these inspectors examining the collieries so frequently would be to shift the responsibility (!) of supplying proper venti-

Streusand drauf!

523:8–524:2 6. *Mineninspektion.* Die Arbeiter leiden nicht nur von den Zufällen durch explodierende Gase.

(n. 234sqq.) „Wir haben uns ebensosehr zu beklagen über die schlechte Ventilation der Kohlengruben, so daß die Leute kaum darin atmen können; sie werden dadurch zu jeder Art Beschäftigung unfähig. So hat z.B. gerade jetzt in dem Teil der Mine, wo ich arbeite, die Pestluft viele Leute für Wochen aufs Krankenbett geworfen. Die Hauptgänge sind meist luftig genug, aber nicht die Plätze, worin wir arbeiten. Sendet ein Mann Klage über Ventilation an den Inspektor, so wird er entlassen und ist ein „gezeichneter“ Mann, der auch sonstwo keine Beschäftigung findet. Der „Mining inspection Act“ von 1860 ist ein reiner Papierlappen. Der Inspektor, und ihre Zahl ist viel zu klein, macht vielleicht in 7 Jahren einmal eine formelle Visite. Unser Inspektor ist ein ganz unfähiger, siebzigjähriger Mann, der mehr als 130 Kohlenbergwerken vorsteht. Neben mehr Inspektoren brauchen wir Subinspektoren.“ (n. 280.) „Soll dann die Regierung solch eine Armee von Inspektoren halten, daß sie alles, was Ihr verlangt, ohne Information der Arbeiter selbst tun können?—Das ist unmöglich, aber sie sollen sich die Information in den Minen selbst holen kommen.“ (n. 285.) „Glaubt Ihr nicht, daß die Wirkung sein würde, die Verantwortlichkeit (!) für die Ventilation usw. von dem Minenbesitzer auf die Regierungsbeamten zu wälzen?—Keineswegs; es muß ihr Geschäft sein, die Befolgung der bereits bestehenden Gesetze zu erzwingen.“ (n. 294.) „Wenn Ihr von Subinspektoren spricht, meint Ihr Leute mit weniger Gehalt und von niedrigerem Charakter als die gegenwärtigen Inspektoren?—Ich wünsche sie keineswegs niedriger, wenn Ihr sie besser haben könnt.“ (n. 295.) „Wollt Ihr mehr Inspektoren oder eine niedrigere Klasse von Leuten als die Inspektoren?—Wir brauchen Leute, die sich in den Minen selbst umtummeln, Leute, die keine Angst für die eigne Haut haben.“ (n. 297.) „Wenn man Euren Wunsch nach Inspektoren von einer schlechten Sorte erfüllte, würde ihr Mangel an Geschick nicht Gefahren erzeugen usw.?—Nein; es ist Sache der Regie-

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lation from the owners of the collieries to the Government officials?" "No, I do not think that, I think that they should make it their business to enforce the Acts which are already in existence." (n. 285.) "When you speak of sub-inspectors, do you mean men at a less salary, and of an inferior stamp to the present inspectors?" "I would not have them inferior, if you could get them otherwise." (n. 294.) "Do you merely want more inspectors, or do you want a lower class of men as an inspector?" "A man who would knock about, and see that things are kept right; a man who would not be afraid of himself." (n. 295.) "If you obtained your wish in getting an inferior class of inspectors appointed, do you think that there would be no danger from want of skill, etc?" "I think not, I think that the Government would see after that, and have proper men in that position." (n. 297.)

This kind of examination becomes at last too much even for the chairman of the committee, and he interrupts with the observation:

"You want a class of men who would look into all the details of the mine, and would go into all the holes and corners, and go into the real facts . . . they would report to the chief inspector, who would then bring his scientific knowledge to bear on the facts they have stated?" (ns. 298, 299.) "Would it not entail very great expense if all these old workings were kept ventilated?" "Yes, expense might be incurred, but life would be at the same time protected." (n. 531.)

503:3–4 A working miner objects to the 17th section of the Act of 1860; he says,

"At the present time, if the inspector of mines finds a part of the mine unfit to work in, he has to report it to the mine-owner and the Home Secretary. After doing that, there is given to the owner 20 days to look over the matter; at the end of 20 days he has the power to refuse making any alteration in the mine; but, when he refuses, the mine-owner writes to the Home Secretary, at the same time nominating five engineers, and from those five engineers named by the mine-owner himself, the Home Secretary appoints one, I think, as arbitrator, or appoints arbitrators from them; now we think in that case the mine-owner virtually appoints his

rung, passende Subjekte anzustellen."

Diese Art Examination wird endlich selbst dem Präsidenten des Untersuchungsausschusses zu toll.

„Ihr wollt“, fährt er dazwischen, „praktische Leute, die sich in den Minen selbst umsehen und an den Inspektor berichten, der dann seine höhere Wissenschaft verwenden kann.“ (n. 531.) „Würde die Ventilation aller dieser alten Werke nicht viel Kosten verursachen?—Ja, Unkosten möchten erwachsen, aber Menschenleben würden geschützt.“

524:4–5 (n. 581.) Ein Kohlenarbeiter protestiert gegen die 17. Sektion des Akts von 1860:

„Gegenwärtig, wenn der Mineninspektor irgendeinen Teil der Mine in nicht bearbeitungsfähigem Zustand findet, muß er es an den Minenbesitzer und den Minister des Innern berichten. Danach hat der Minenbesitzer 20 Tage Bedenkzeit; am Ende der 20 Tage kann er jede Veränderung verweigern. Tut er das aber, so hat er an den Minister des Innern zu schreiben und ihm 5 Bergwerksingenieure vorzuschlagen, worunter der Minister die Schiedsrichter erwählen muß. Wir behaupten, daß in diesem Fall der Minenbesitzer virtuell seine eignen Richter ernannt.“

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own arbitrator.” (n. 581.)

503:5–8 Bourgeois examiner, himself a mine-owner:

“But ... is this a merely speculative objection?” (n. 586.) “Then you have a very poor opinion of the integrity of mining engineers?” “It is most certainly unjust and inequitable.” (n. 588.) “Do not mining engineers possess a sort of public character, and do not you think that they are above making such a partial decision as you apprehend?” “I do not wish to answer such a question as that with respect to the personal character of those men. I believe that in many cases they would act very partially indeed, and that it ought not to be in their hands to do so, where men’s lives are at stake.” (n. 589.)

This same bourgeois is not ashamed to put this question:

“Do you not think that the mine-owner also suffers loss from an explosion?”

Finally,

“Are not you workmen in Lancashire able to take care of your own interests without calling in the Government to help you?” “No.” (n. 1042.)

503:9/o In the year 1865 there were 3,217 coal mines in Great Britain, and 12 inspectors. A Yorkshire mine-owner himself calculates (*Times*, 26th January, 1867), that putting on one side their office work, which absorbs all their time, each mine can be visited but once in ten years by an inspector. No wonder that explosions have increased progressively, both in number and extent (sometimes with a loss of 200–300 men), during the last ten years. These are the beauties of “free” capitalist production! [*This sentence has been added to the English text in conformity with the 4th German edition.—Ed.*]

504:1 The very defective Act, passed in 1872, is the first that regulates the hours of labor of the children employed in mines, and makes exploiters and owners, to a certain extent, responsible for so-called accidents.

There were also attempts to establish legislation in agriculture, which however failed so far.

525:1–6 (n. 586.) Der Bourgeoisexaminator, selbst Minenbesitzer:

„Dies ist ein rein spekulativer Einwand.“ (n. 588.) „Ihr habt also sehr geringer Ansicht von der Redlichkeit der Bergwerksingenieure?—Ich sage, es ist sehr unbillig und ungerecht.“ (n. 589.) „Besitzen Bergwerksingenieure nicht eine Art von öffentlichem Charakter, der ihre Entscheidungen über die von Euch befürchtete Parteilichkeit erhebt?—Ich verweigere, Fragen über den persönlichen Charakter dieser Leute zu beantworten. Ich bin überzeugt, daß sie in vielen Fällen sehr partiisch handeln und daß diese Macht ihnen genommen werden sollte, wo Menschenleben auf dem Spiel stehn.“

Derselbe Bourgeois hat die Unverschämtheit, zu fragen:

„Glaubt Ihr nicht, daß auch die Minenbesitzer Verluste bei den Explosionen haben?“

Endlich (n. 1042.):

„Könnt Ihr Arbeiter Eure eignen Interessen nicht selbst wahrnehmen, ohne die Hilfe der Regierung anzurufen?—Nein.“

525:7 Im Jahre 1865 gab es 3217 Kohlenbergwerke in Großbritannien und—12 Inspektoren. Ein Minenbesitzer von Yorkshire („*Times*“, 26. Januar 1867) berechnet selbst, daß abgesehen von ihren rein bürokratischen Geschäften, die ihre ganze Zeit absorbieren, jede Mine nur einmal in 10 Jahren besichtigt werden könnte. Kein Wunder, daß die Katastrophen in den letzten Jahren (namentlich auch 1866 und 1867) progressiv in Anzahl und Umfang (manchmal mit einem Opfer von 200–300 Arbeitern) zugenommen haben. Dies sind die Schönheiten der „freien“ kapitalistischen Produktion!

525:8 Jedenfalls ist der Akt von 1872, so mangelhaft er ist, der erste, der die Arbeitsstunden der in Bergwerken beschäftigten Kinder regelt und die Exploiteure und Grubenbesitzer in gewissem Maß für sogenannte Unfälle verantwortlich macht.

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504:2 The Royal Commission appointed in 1867 to inquire into the employment in agriculture of children, young persons, and women, has published some very important reports. Several attempts to apply the principles of the Factory Acts, but in a modified form, to agriculture have been made, but have so far resulted in complete failure. All that I wish to draw attention to here is the existence of an irresistible tendency towards the general application of those principles.

525:9 Die königliche Kommission von 1867 zur Untersuchung der Beschäftigung von Kindern, jugendlichen Personen und Weibern in der Agrikultur hat einige sehr wichtige Berichte veröffentlicht. Es sind verschiedene Versuche gemacht worden, die Prinzipien der Fabrikgesetzgebung, in modifizierter Form, auf die Agrikultur anzuwenden, aber bis jetzt schlugen sie alle total fehl. Worauf ich hier aber aufmerksam zu machen habe, ist das Bestehn einer unwiderstehlichen Tendenz zur allgemeinen Anwendung dieser Prinzipien.

↓ General remarks about how the factory legislation *sharpens* the contradictions of capitalism:

504:3/o If the general extension of factory legislation to all trades for the purpose of protecting the working-class both in mind and body has become inevitable, on the other hand, as we have already pointed out, that extension hastens on the general conversion of numerous isolated small industries into a few combined industries carried on upon a large scale; it therefore accelerates the concentration of capital and the exclusive predominance of the factory system. It destroys both the ancient and the transitional forms, behind which the dominion of capital is still in part concealed, and replaces them by the direct and open sway of capital; but thereby it also generalises the direct opposition to this sway. While in each individual workshop it enforces uniformity, regularity, order, and economy, it increases by the immense spur which the limitation and regulation of the working-day give to technical improvement, the anarchy and the catastrophes of capitalist production as a whole, the intensity of labor, and the competition of machinery with the laborer. By the destruction of petty and domestic industries it destroys the last resort of the "redundant population," and with it the sole remaining safety-valve of the whole social mechanism. By maturing the material conditions, and the combination on a social scale of the processes of production, it matures the con-

525:10/o Wenn die Verallgemeinerung der Fabrikgesetzgebung als physisches und geistiges Schutzmittel der Arbeiterklasse unvermeidlich geworden ist, verallgemeinert und beschleunigt sie andererseits, wie bereits angedeutet, die Verwandlung zerstreuter Arbeitsprozesse auf Zwergmaßstab in kombinierte Arbeitsprozesse auf großer, gesellschaftlicher Stufenleiter, also die Konzentration des Kapitals und die Alleinherrschaft des Fabrikregimes. Sie zerstört alle altertümlichen und Übergangsformen, wohinter sich die Herrschaft des Kapitals noch teilweise versteckt, und ersetzt sie durch seine direkte, unverhüllte Herrschaft. Sie verallgemeinert damit auch den direkten Kampf gegen diese Herrschaft. Während sie in den individuellen Werkstätten Gleichförmigkeit, Regelmäßigkeit, Ordnung und Ökonomie erzwingt, vermehrt sie durch den ungeheuren Sporn, den Schranke und Regel des Arbeitstags der Technik aufdrücken, die Anarchie und Katastrophen der kapitalistischen Produktion im großen und ganzen, die Intensität der Arbeit und die Konkurrenz der Maschinerie mit dem Arbeiter. Mit den Sphären des Kleinbetriebs und der Hausarbeit vernichtet sie die letzten Zufluchtsstätten der „Überzähligen“ und damit das bisherige Sicherheitsventil des ganzen Gesellschaftsmechanismus. Mit den materiellen Bedingungen und der gesellschaftli-

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traditions and antagonisms of the capitalist form of production, and thereby provides, along with the elements for the formation of a new society, the forces for exploding the old one.³²²

By increasing the discipline inside the factory, it increases the anarchy outside. It promotes the concentration of capital and therefore also concentrates the struggle against capital. With the small workshops disappear the safety valves of the social mechanism.

Question 1028 *Explain how and why the generalization of the factory laws to those industries where machinery had not yet been introduced “matures the contradictions and antagonisms of the capitalistic form of production” (p. 503).*

³²² Robert Owen, the father of Co-operative Factories and Stores, but who, as before remarked, in no way shared the illusions of his followers with regard to the bearing of these isolated elements of transformation, not only practically made the factory system the sole foundation of his experiments, but also declared that system to be theoretically the startingpoint of the social revolution. Herr Vissering, Professor of Political Economy in the University of Leyden, appears to have a suspicion of this when, in his “Handboek van Practische Staatshuishoudkunde, 1860–62,” which reproduces all the platitudes of vulgar economy, he strongly supports handicrafts against the factory system. [Added in the 4th German edition—The “hopelessly bewildering tangle of contradictory enactments” (S. 314) (present volume, p. 284) which English legislation called into life by means of the mutually conflicting Factory Acts, the Factory Acts Extension Act and the Workshops’ Act, finally became intolerable, and thus all legislative enactments on this subject were codified in the Factory and Workshop Act of 1878. Of course no detailed critique of this English industrial code now in effect can be presented here. The following remarks will have to suffice. The Act comprises: 1) *Textile Mills*. Here everything remains about as it was: children more than 10 years of age may work 5 1/2 hours a day; or 6 hours and Saturday off; young persons and women, 10 hours on 5 days, and at most 6 1/2 on Saturday. 2) *Non-Textile Factories*. Here the regulations are brought closer than before to those of No. 1, but there are still several exceptions which favour the capitalists and which in certain cases may be expanded by special permission of the Home

chen Kombination des Produktionsprozesses reift sie die Widersprüche und Antagonismen seiner kapitalistischen Form, daher gleichzeitig die Bildungselemente einer neuen und die Umwälzungsmomente der alten Gesellschaft.³²²

³²² Robert Owen, der Vater der Kooperativfabriken und -boutiquen, der jedoch, wie früher bemerkt, die Illusionen seiner Nachtreter über die Tragweite dieser isolierten Umwandlungselemente keineswegs teilte, ging nicht nur tatsächlich in seinen Versuchen vom Fabrikssystem aus, sondern erklärte es auch theoretisch für den Ausgangspunkt der sozialen Revolution. Herr Vissering, Professor der politischen Ökonomie an der Universität zu Leyde, scheint so etwas zu ahnen, wenn er in seinem „Handboek van Practische Staatshuishoudkunde“, 1860–1862, welches die Platteiten der Vulgärökonomie in entsprechender Form vorträgt, für Handwerksbetrieb gegen große Industrie eifert.—{Zur 4. Aufl.—Der „neue juristische Rattenkönig“ (S. 264), den die englische Gesetzgebung vermittelt der einander widersprechenden Factory Acts, Factory Acts Extension Act und Workshops’ Act ins Leben gerufen, wurde endlich unerträglich, und so kam im Factory and Workshop Act 1878 eine Kodifikation der ganzen betreffenden Gesetzgebung zustande. Eine ausführliche Kritik dieses jetzt gültigen Industriekodex Englands kann hier natürlich nicht gegeben werden. Daher mögen folgende Notizen genügen: Der Akt umfaßt 1. Textilfabriken. Hier bleibt so ziemlich alles beim alten: erlaubte Arbeitszeit für Kinder über 10 Jahren: 5 1/2 Stunden täglich, oder aber 6 Stunden, und dann den Samstag frei; junge Personen und Frauen: 10 Stunden an fünf Tagen, höchstens 6 1/2 am Samstag.—2. Nicht-Textilfabriken. Hier sind die Bestimmungen deren von Nr. 1 mehr angenähert als früher, aber noch immer bestehn manche, den Kapitalisten günstige Ausnahmen, die in manchen Fällen durch Spezialerlaubnis des Ministers des Innern

Secretary. 3) *Workshops*, defined approximately as in the former Act; as for the children, young workers and women employed there, the workshops are about on a par with the non-textile factories, but again conditions are easier in details. 4) *Workshops* in which no children or young workers are employed, but only persons of both sexes above the age of 18; this category enjoy still easier conditions. 5) *Domestic Workshops*, where only members of the family are employed, in the family dwelling: still more elastic regulations and simultaneously the restriction that the inspector may, without special permission of the ministry or a court, enter only rooms not used also for dwelling purposes; and lastly unrestricted freedom for straw-plaiting and lace and glove-making by members of the family. With all its defects this Act, together with the Swiss Federal Factory Law of March 23, 1877, is still by far the best piece of legislation in this field. A comparison of it with the said Swiss federal law is of particular interest because it clearly demonstrates the merits and demerits of the two legislative methods—the English, “historical” method, which intervenes when occasion requires, and the continental method, which is built up on the traditions of the French Revolution and generalises more. Unfortunately, due to insufficient inspection personnel, the English code is still largely a dead letter with regard to its application to workshops.—*F.E.*

noch ausdehnbar sind.—3. Workshops, definiert ungefähr wie im frühern Akt; soweit Kinder, jugendliche Arbeiter oder Frauen darin beschäftigt, sind Workshops den nicht-textilen Fabriken so ziemlich gleichgestellt, doch wieder mit Erleichterungen im einzelnen.—4. Workshops, in denen keine Kinder oder jugendliche Arbeiter, sondern nur Personen beiderlei Geschlechts über 18 Jahren beschäftigt werden; für diese Kategorie gelten noch weitre Erleichterungen.—5. Domestic Workshops, wo nur Familienglieder in der Familienwohnung beschäftigt werden; noch elastischere Bestimmungen und gleichzeitig die Beschränkung, daß der Inspektor ohne besondere ministerielle oder richterliche Erlaubnis nur solche Räume betreten darf, die nicht zugleich als Wohnräume benutzt werden, und endlich die unbedingte Freigebung von Strohflechtereien, Spitzenklöppelei und Handschuhmacherei innerhalb der Familie. Bei allen Mängeln ist der Akt immer noch, neben dem schweizerischen Bundesfabrikgesetz vom 23. März 1877, weitaus das beste Gesetz über den Gegenstand. Eine Vergleichung desselben mit dem erwähnten schweizerischen Bundesgesetz ist von besonderem Interesse, weil sie die Vorzüge wie die Nachteile der beiden gesetzgeberischen Methoden—der englischen, „historischen“, von Fall zu Fall eingreifenden, und der kontinentalen, auf den Traditionen der französischen Revolution aufgebauten, mehr generalisierenden Methode—sehr anschaulich macht. Leider ist der englische Kodex in seiner Anwendung auf Workshops größtenteils noch immer toter Buchstabe—wegen unzureichendem Inspektionspersonal.—*F. E.*}

“Hopelessly bewildering tangle” is in chapter Ten, 304:1/o.

15.10. Modern Industry and Agriculture

Questions about section 10

Question 1029 *Why are agricultural workers hit even harder by the introduction of machinery than industrial workers? (Two main factors mitigating the displacement of factory workers by machinery do not work for agricultural workers.)*

Question 1030 *Show that capitalism increases the separation between town and country and at the same time creates the conditions for a new synthesis!*

Question 1031 *(This question is not dealt with by Marx, but it might deserve further research.) How did the automobile modify the relation between town and country under capitalism?*

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::23527:636/637:0:504/505:0: Only in the accumulation chapter can the process be represented which revolutionizes the social relations of the agrarian workers. Here only some *results* which are apparently based on the following two main points.

(1) The introduction of machinery results in a spacewise *dispersion* rather than concentration of the agricultural producers. Since the increase of the tilled land is limited, the thus expelled workers cannot be absorbed in other agricultural jobs. (“ohne Gegenstoß,” “sans contrecoup,” in English erroneously: “finds less resistance,” should be: “without rebound.”; the example of the USA backs this since there the increase was not yet limited).

(2) The production of agricultural machinery is not agricultural but industrial (is this what the last sentence of the paragraph is supposed to say? The French edition, p. 362:1, makes it a little clearer (translate the sentence here) *ruraux—industries*).

505:1/o The revolution called forth by modern industry in agriculture, and in the social relations of agricultural producers, will be investigated later on.

527/o Die Revolution, welche die große Industrie im Ackerbau und den sozialen Verhältnissen seiner Produktionsagenten hervorruft, kann erst später dargestellt werden.

“erst später:” see the Accumulation chapter, subsection starting on p. ::23701::673:, but there must be other places too.

In this place, we shall merely indicate a few results by way of anticipation. If the use of machinery in agriculture is for the most part free from the injurious physical effect it has on the factory operative,³²³ its action in superseding the laborers is more intense, and finds less resistance, as we shall see later in detail. In the counties of Cambridge and Suffolk, for example, the area of cultivated land has extended very much within the last 20 years (up to 1868), while in the same period the rural population has diminished, not only relatively, but absolutely. In the United States it is as yet only virtually that agricultural machines replace laborers; in other words, they allow of the cultivation by the farmer of a larger surface, but do not actually expel the laborers employed. In 1861 the number of persons occupied in England and Wales in the manufacture of agricultural machines was 1,034, whilst the number of agricultural laborers employed in the use of agricultural machines and steam-engines did not exceed 1,205.

Hier genügt kurze Andeutung einiger vorweggenommenen Resultate. Wenn der Gebrauch der Maschinerie im Ackerbau größtenteils frei ist von den physischen Nachteilen, die sie dem Fabrikarbeiter zufügt,³²³ wirkt sie hier noch intensiver und ohne Gegenstoß auf die „Überzähligmachung“ der Arbeiter, wie man später im Detail sehen wird. In den Grafschaften Cambridge und Suffolk z.B. hat sich das Areal des bebauten Landes seit den letzten zwanzig Jahren sehr ausgedehnt, während die Landbevölkerung in derselben Periode nicht nur relativ, sondern absolut abnahm. In den Vereinigten Staaten von Nordamerika ersetzen Agrikultur-Maschinen einstweilen nur virtuell Arbeiter, d.h., sie erlauben dem Produzenten Bebauung einer größeren Fläche, verjagen aber nicht wirklich beschäftigte Arbeiter. In England und Wales betrug 1861 die Zahl der in der Fabrikation von Ackerbau-Maschinen beteiligten Personen 1034, während die Zahl der an Dampf- und Arbeitsmaschinen beschäftigten Agrikulturarbeiter nur 1205 betrug.

³²³ An exhaustive description of the machinery employed in agriculture in England is to be found in a book by Dr. W. Hamm, *Die landwirthschaftliche Geräte und Maschinen Englands*, 2nd edn., 1856. In his sketch of the course

³²³ Ausführliche Darstellung der im englischen Ackerbau angewandten Maschinerie findet man in „Die landwirthschaftliche Geräte und Maschinen Englands“ von Dr. W. Hamm. 2. Aufl., 1856. In seiner Skizze über den Entwick-

of development of English agriculture, the author follows Léonce de Lavergne too uncritically. [Added by Engels to the fourth German edition:] The book is now out of date, of course.

lungsgang der englischen Agrikultur folgt Herr Hamm zu kritiklos dem Herrn Leonce de Lavergne. {Zur 4. Aufl.—Jetzt natürlich veraltet.—F.E.}

506:1/oo The development of the town-country opposition under capitalism.

506:1/oo In the sphere of agriculture, modern industry has a more revolutionary effect than elsewhere, for this reason, that it annihilates the peasant, that bulwark of the old society, and replaces him by the wage-laborer. Thus the desire for social changes, and the class antagonisms are brought to the same level in the country as in the towns. The irrational, old-fashioned methods of agriculture are replaced by scientific ones.

528:1/oo In der Sphäre der Agrikultur wirkt die große Industrie insofern am revolutionärsten, als sie das Bollwerk der alten Gesellschaft vernichtet, den „Bauer“, und ihm den Lohnarbeiter unterschiebt. Die sozialen Umwälzungsbedürfnisse und Gegensätze des Landes werden so mit denen der Stadt ausgeglichen. An die Stelle des gewohnheitsfaulsten und irrationellsten Betriebs tritt bewußte, technologische Anwendung der Wissenschaft.

Gewohnheitsfaul und irrationell: habit-driven, repetitive, and irrational?

Capitalist production completely tears asunder the old bond of union which held together agriculture and manufacture in their infancy. But at the same time it creates the material conditions for a higher synthesis in the future, viz., the union of agriculture and industry on the basis of the more perfected forms they have each acquired during their temporary separation.

Die Zerreißung des ursprünglichen Familienbandes von Agrikultur und Manufaktur, welches die kindlich unentwickelte Gestalt beider umschlang, wird durch die kapitalistische Produktionsweise vollendet. Sie schafft aber zugleich die materiellen Voraussetzungen einer neuen, höheren Synthese, des Vereins von Agrikultur und Industrie, auf Grundlage ihrer gegensätzlich ausgearbeiteten Gestalten.

Thesis: In an undeveloped stage, agriculture and industry have “original family ties,” presumably since they both evolved from domestic production.

Antithesis under capitalism (elements for a higher synthesis are underlined): *The needs for social changes are now the same in the country as in the towns.* The concentration of the population in the cities and their thinning in the country *increases the historical momentum the society* but it destroys the traditional ecological cycle *thus enforcing the systematic regulation of this cycle.* Destroys physical health of urban workers and spiritual life of agricultural worker.

Now is this a new beginning?

The dispersion of the agricultural workers breaks their resistance, while concentration increases the resistance of the urban workers

In both, the increased labor set in motion goes at the expense of laying waste and consuming the labor-power, but in agriculture also the land is robbed: *Capitalism develops the technology and combination of the social production process* only by undermining the very sources of wealth, *labor and the land* (underlined and set in a separate paragraph in French).

Capitalist production, by collecting the population in great centres, and causing an ever-increasing preponderance of town population, on the one hand concentrates the historical motive power of society; on the other hand, it disturbs the circulation of matter be-

Mit dem stets wachsenden Übergewicht der städtischen Bevölkerung, die sie in großen Zentren zusammenhäuft, häuft die kapitalistische Produktion einerseits die geschichtliche Bewegungskraft der Gesellschaft, stört sie andererseits den Stoffwechsel zwischen

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tween man and the soil, i.e., prevents the return to the soil of its elements consumed by man in the form of food and clothing; it therefore violates the conditions necessary to lasting fertility of the soil. By this action it destroys at the same time the health of the town laborer and the intellectual life of the rural laborer.³²⁴ But while upsetting the naturally grown conditions for the maintenance of that circulation of matter, it imperiously calls for its restoration as a system, as a regulating law of social production, and under a form appropriate to the full development of the human race.

Now a concluding summary for the whole chapter: This is a new paragraph in French but not in German or English.

In agriculture as in manufacture, the transformation of production under the sway of capital, means, at the same time, the martyrdom of the producer; the instrument of labor becomes the means of enslaving, exploiting, and impoverishing the laborer; the social combination and organisation of labor-processes is turned into an organised mode of crushing out the workman's individual vitality, freedom, and independence. The dispersion of the rural laborers over larger areas breaks their power of resistance while concentration increases that of the town operatives. In modern agriculture, as in the urban industries, the increased productivity and quantity of the labor set in motion are bought at the cost of laying waste and consuming by disease labor-power itself. Moreover, all progress in capitalistic agriculture is a progress in the art, not only of robbing the laborer, but of robbing the soil; all progress in increasing the fertility of the soil for a given time, is a progress towards ruining the lasting sources of that fertility. The more a country starts its development on the foundation of modern industry, like the United States, for example, the more rapid is this process of destruction.³²⁵

Mensch und Erde, d.h. die Rückkehr der vom Menschen in der Form von Nahrungs- und Kleidungsmitteln vernutzten Bodenbestandteile zum Boden, also die ewige Naturbedingung dauernder Bodenfruchtbarkeit. Sie zerstört damit zugleich die physische Gesundheit der Stadtarbeiter und das geistige Leben der Landarbeiter.³²⁴ Aber sie zwingt zugleich durch die Zerstörung der bloß naturwüchsig entstandnen Umstände jenes Stoffwechsels, ihn systematisch als regelndes Gesetz der gesellschaftlichen Produktion und in einer der vollen menschlichen Entwicklung adäquaten Form herzustellen.

In der Agrikultur wie in der Manufaktur erscheint die kapitalistische Umwandlung des Produktionsprozesses zugleich als Martyrologie der Produzenten, das Arbeitsmittel als Unterjochungsmittel, Exploitationsmittel und Verarmungsmittel des Arbeiters, die gesellschaftliche Kombination der Arbeitsprozesse als organisierte Unterdrückung seiner individuellen Lebendigkeit, Freiheit und Selbständigkeit. Die Zerstreuung der Landarbeiter über größere Flächen bricht zugleich ihre Widerstandskraft, während Konzentration die der städtischen Arbeiter steigert. Wie in der städtischen Industrie wird in der modernen Agrikultur die gesteigerte Produktivkraft und größere Flüssigmachung der Arbeit erkaufte durch Verwüstung und Versiechung der Arbeitskraft selbst. Und jeder Fortschritt der kapitalistischen Agrikultur ist nicht nur ein Fortschritt in der Kunst, den Arbeiter, sondern zugleich in der Kunst, den Boden zu berauben, jeder Fortschritt in Steigerung seiner Fruchtbarkeit für eine gegebene Zeitfrist zugleich ein Fortschritt im Ruin der dauernden Quellen dieser Fruchtbarkeit. Je mehr ein Land, wie die Vereinigten Staaten von Nordamerika z.B., von der großen Industrie als dem Hintergrund seiner Entwicklung ausgeht, desto rascher dieser Zerstörungsprozeß.³²⁵

A famous pronouncement noted by Marxist ecologists:

Capitalist production, therefore, develops technology, and the combining together of various processes into a social whole, only by sapping the original sources of all wealth—the soil and the laborer.

Die kapitalistische Produktion entwickelt daher nur die Technik und Kombination des gesellschaftlichen Produktionsprozesses, indem sie zugleich die Springquellen alles Reichtums untergräbt: die Erde und den Arbeiter.

³²⁴ “You divide the people into two hostile camps of clownish boors and emasculated dwarfs. Good heavens! a nation divided into agricultural and commercial interests, calling itself sane; nay, styling itself enlightened and civilised, not only in spite of, but in consequence of this monstrous and unnatural division.” (David Urquhart, l.c., p. 119.) This passage shows, at one and the same time, the strength and the weakness of that kind of criticism which knows how to judge and condemn the present, but not how to comprehend it.

³²⁴ „Ihr teilt das Volk in zwei feindliche Lager, plumpe Bauern und verweichlichte Zwerge. Lieber Himmel! Eine Nation, zerspalten in landwirtschaftliche und Handelsinteressen, nennt sich gesund, ja hält sich für aufgeklärt und zivilisiert, nicht nur trotz, sondern gerade zufolge dieser ungeheuerlicher und unnatürlichen Trennung.“ (David Urquhart, l.c. p. 119.) Diese Stelle zeigt zugleich die Stärke und die Schwäche einer Art von Kritik, welche die Gegenwart zu be- und verurteilen, aber nicht zu begreifen weiß.

³²⁵ See Liebig: “Die Chemie in ihrer Anwendung auf Agricultur und Physiologie,” 7. Auflage, 1862, and especially the “Einleitung in die Naturgesetze des Feldbaus,” in the 1st Volume. To have developed from the point of view of natural science, the negative, i.e., destructive side of modern agriculture, is one of Liebig’s immortal merits. His summary, too, of the history of agriculture, although not free from gross errors, contains flashes of light. It is, however, to be regretted that he ventures on such haphazard assertions as the following: “By greater pulverising and more frequent ploughing, the circulation of air in the interior of porous soil is aided, and the surface exposed to the action of the atmosphere is increased and renewed; but it is easily seen that the increased yield of the land cannot be proportional to the labor spent on that land, but increases in a much smaller proportion. This law,” adds Liebig, “was first enunciated by John Stuart Mill in his ‘Principles of Pol. Econ.,’ Vol. 1, p. 17, as follows: ‘That the produce of land increases, *caeteris paribus*, in a diminishing ratio to the increase of the laborers employed’ (Mill here introduces in an erroneous form the law enunciated by Ricardo’s school, for since the ‘decrease of the laborers employed,’ kept even pace in England with the advance of agriculture, the law discovered in, and applied to, England, could have no application to that country, at all events), ‘is the universal law of agricultural industry.’ This is very remarkable,

³²⁵ Vgl. Liebig, „Die Chemie in ihrer Anwendung auf Agrikultur und Physiologie“, 7. Auflage, 1862, namentlich auch im Ersten Band die „Einleitung in die Naturgesetze des Feldbaus“. Die Entwicklung der negativen Seite der modernen Agrukultur, vom naturwissenschaftlichen Standpunkt, ist eins der unsterblichen Verdienste Liebig’s. Auch seine historischen Aperçus über die Geschichte der Agrikultur, obgleich nicht ohne grobe Irrtümer, enthalten Lichtblicke. Zu bedauern bleibt, daß er aufs Gratewohl Äußerungen wagt, wie folgende: „Durch eine weiter getriebne Pulverisierung und häufigeres Pflügen wird der Luftwechsel im Innern poröser Erdteile befördert, und die Oberfläche der Erdteile, auf welche die Luft einwirken soll, vergrößert und erneuert, aber es ist leicht verständlich, daß die Mehrbeträge des Feldes nicht proportionell der auf das Feld verwandten Arbeit sein können, sondern daß sie in einem weit kleineren Verhältnis steigen.“ „Dieses Gesetz“, fügt Liebig hinzu, „ist von J. St. Mill zuerst in seinen „Princ. of Pol. Econ.“, v. I, p. 17, in folgender Weise ausgesprochen: „Daß der Ertrag des Bodens *caeteris paribus* in einem abnehmenden Verhältnis wächst im Vergleich zum Anwachsen der Zahl der beschäftigten Arbeiter““ (Herr Mill wiederholt sogar das Ricardosche Schulgesetz in falscher Formel, denn da „the decrease of the labourers employed“, die Abnahme der angewandten Arbeiter, in England beständig Schritt hielt mit dem Fortschritt der Agrikultur, fände das für und in

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since Mill was ignorant of the reason for this law." (Liebig, l.c., Bd. I., p. 143 and Note.) Apart from Liebig's wrong interpretation of the word "labor," by which word he understands something quite different from what Political Economy does, it is, in any case, "very remarkable" that he should make Mr. John Stuart Mill the first propounder of a theory which was first published by James Anderson in A. Smith's days, and was repeated in various works down to the beginning of the 19th century; a theory which Malthus, that master in plagiarism (the whole of his population theory is a shameless plagiarism), appropriated to himself in 1815; which West developed at the same time as, and independently of, Anderson; which in the year 1817 was connected by Ricardo with the general theory of value, then made the round of the world as Ricardo's theory, and in 1820 was vulgarised by James Mill, the father of John Stuart Mill; and which, finally, was reproduced by John Stuart Mill and others, as a dogma already quite commonplace, and known to every schoolboy. It cannot be denied that John Stuart Mill owes his, at all events, "remarkable" authority almost entirely to such *quid-pro-quos*.

England erfundene Gesetz wenigstens in England keine Anwendung), „Ist allgemeine Gesetz der Landwirtschaft“, merkwürdig genug, da ihm dessen Grund unbekannt war.“ (Liebig, l.c., Bd. I., p. 143 u. Note.) Abgesehen von irriger Deutung des Wortes „Arbeit“, worunter Liebig etwas anderes versteht als die politische Ökonomie, ist es jedenfalls „merkwürdig genug“, daß er Herrn J. St. Mill zum ersten Verkünder einer Theorie macht, die James Anderson zur Zeit A. Smiths zuerst veröffentlichte und in verschiedenen Schriften bis in den Anfang des 19. Jahrhunderts hinein wiederholte, die Malthus, überhaupt ein Meister des Plagiats (seine ganze Bevölkerungstheorie ist ein schamloses Plagiat), sich 1815 annexierte, die West zur selben Zeit und unabhängig von Anderson entwickelte, die Ricardo 1817 in Zusammenhang mit der allgemeinen Werttheorie brachte und die von da an unter dem Namen Ricardos die Runde der Welt gemacht hat, die 1820 von James Mill (dem Vater J. St. Mills) vulgarisiert und endlich u.a. auch von Herrn J. St. Mill als bereits Gemeinplatz gewordenes Schuldogma wiederholt wird. Es ist unleugbar, daß J. St. Mill seine jedenfalls „merkwürdige“ Autorität fast nur ähnlichen Quiproquo verdankt.

Question 1032 *In chapter VII we had a comparison between the characteristics of the labor process and of the process of creating surplus value. Show that it is the latter characteristics which have become reality in most modern machinery. In other words, show that the technology of most machinery under capitalism is determined by the purpose to exploit the worker, rather than to help him produce more efficiently. Infer from this in what direction machinery develops under socialism.*

Question 1033 *Is it true that machinery displaces laborers? If so, how can you measure the number of laborers displaced by a given machine? How do the capitalists try to compensate for the fact that machinery displaces their workers and thus diminishes the number of workers they exploit? (For the last part see 530:2/o)*

Part V.

The Production of Absolute and of Relative Surplus-Value

After discussing separately the two different kinds of surplus-value, absolute and relative, now their unity is discussed.

16. Absolute and Relative Surplus-Value

Chapter Sixteen is a continuation of chapter Seven, which discussed the labor process and the valorization process. Chapter Seven could only give a preliminary definition of valorization. It derived what valorization must be, namely, a labor process extended beyond the point where an equivalent of the workers' wages has been produced. When looking at it in more detail in the intervening chapters, Marx discovered that surplus-value comes in two varieties, absolute and relative. After this, he can give a fuller answer about the origin of surplus-value and the character of the labor producing surplus-value.

Chapter Seven had two parts, one discussing the labor process as a process between humans and nature, and one discussing it as a process forming value and surplus-value. Chapter Sixteen has two main parts as well. The first part continues the discussion of the process from its value side. It traces the evolution of the production process with the development of the specific capitalist mode of production. Triggered by the question about the natural conditions for exploitation, the second part briefly sketches the historical evolution of the productivity of labor.

The end of the chapter amplifies the relationship between absolute and relative surplus-value into the relationship between productivity and exploitation, and its beginning focuses on the concept of productive labor, which also combines production and exploitation.

16.1. [The Specifically Capitalist Mode of Production]

16.1.a. [Extension and Narrowing of the Notion of Productive Labor]

The chapter begins with an elaboration of the concept of productive labor first briefly introduced in chapter Seven, 191:1.

In considering the labor-process, we began (see chapter VII) by treating it in the abstract, apart from its historical forms, as a process between man and Nature. We there stated, "If we examine the whole labor-process, from the point of view of its result, it is plain that both the instruments and the subject of labor are means of production, and that the labor itself is productive labor." And in Note 2, same page, we further added: "This method of determining, from the standpoint of the labor-process alone, what is productive labor, is by no means di-

531:1 Der Arbeitsprozeß wurde (siehe fünftes Kapitel) zunächst abstrakt betrachtet, unabhängig von seinen geschichtlichen Formen, als Prozeß zwischen Mensch und Natur. Es hieß dort: „Betrachtet man den ganzen Arbeitsprozeß vom Standpunkt seines Resultats, so erscheinen beide, Arbeitsmittel und Arbeitsgegenstand, als Produktionsmittel und die Arbeit selbst als produktive Arbeit.“ Und in Note 7 wurde ergänzt: „Diese Bestimmung produktiver Arbeit, wie sie sich vom Standpunkt des einfachen Arbeitsprozesses ergibt, reicht keineswegs hin

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rectly applicable to the case of the capitalist process of production.” We now proceed to the further development of this subject.

für den kapitalistischen Produktionsprozeß.“ Dies ist hier weiter zu entwickeln.

↑ This is a quote from 191:1. Marx seems to be asking here an epistemological question: how does the concept of productive labor change if we no longer speak of the labor process as a process between humans and nature, but of the capitalist production process? But Marx’s answer will show that he has an ontological question in mind. Since the production process is not guided by the laborer but by the capitalist, who is solely interested in the *product* (while the laborer also has a stake in the *process*), society indeed looks at the labor process from the point of view of its *product*. Chapter Fourteen about Manufactories made it clear that the re-structuring of the production process under the command of the capitalist often went *against* the laborer. Marx’s elaboration of the concept of productive labor is therefore, at the same time, a discussion of the changed character of the production process with the advent of capitalism.

[Broadening of the Concept of Productive Labor]

The first thing Marx says is that the concept of productive labor *broadens*. In capitalism, certain kinds of activities are productive labor which do not directly manipulate and shape the product. In order to make this point, he first reminds the reader that an individual laborer, producing a product by himself, performs many different functions which later become separated:

Whenever the labor-process is purely individual, one and the same laborer unites in himself or herself all the functions, that later on become separated.

531:2/o Soweit der Arbeitsprozeß ein rein individueller, vereinigt derselbe Arbeiter alle Funktionen, die sich später trennen.

↓ Marx begins with an important example of the separation of functions: intellectual and manual labor are separated from each other.

When an individual appropriates natural objects for his livelihood, no one controls him but himself. Afterwards he is controlled by others. A single man cannot operate upon Nature without calling his own muscles into play under the control of his own brain. As in the natural body head and hand wait upon each other, so the labor-process unites the labor of the hand with that of the head. Later on they part company and even become deadly foes.

In der individuellen Aneignung von Naturgegenständen zu seinen Lebenszwecken kontrolliert er sich selbst. Später wird er kontrolliert. Der einzelne Mensch kann nicht auf die Natur wirken ohne Betätigung seiner eignen Muskeln unter Kontrolle seines eignen Hirns. Wie im Natursystem Kopf und Hand zusammengehören, vereint der Arbeitsprozeß Kopfarbeit und Handarbeit. Später scheiden sie sich bis zum feindlichen Gegensatz.

This separation is only one example of the disintegration of the labor process into many partial processes co-operating with each other:

The product ceases to be the direct product of the individual, and becomes a social product, produced in common by a collective laborer, *i.e.*, by a combination of workmen, each of whom takes only a part, greater or less, in the manipulation of the object of their labor.

Das Produkt verwandelt sich überhaupt aus dem unmittelbaren Produkt des individuellen Produzenten in ein gesellschaftliches, in das gemeinsame Produkt eines Gesamtarbeiters, d.h. eines kombinierten Arbeitspersonals, dessen Glieder der Handhabung des Arbeitsgegenstandes näher oder ferner

stehn.

Along with this transition of the labor process into a collective process, the concept of productive labor widens:

As the co-operative character of the labor-process becomes more and more marked, so, as a necessary consequence, does our notion of productive labor and of its agent the productive laborer, become extended. In order to labor productively, it is no longer necessary for you to do manual work yourself; it suffices to be an organ of the collective laborer and somehow perform one of its subordinate functions.

Mit dem kooperativen Charakter des Arbeitsprozesses selbst erweitert sich daher notwendig der Begriff der produktiven Arbeit und ihres Trägers, des produktiven Arbeiters. Um produktiv zu arbeiten, ist es nun nicht mehr nötig, selbst Hand anzulegen; es genügt, Organ des Gesamtarbeiters zu sein, irgendeine seiner Unterfunktionen zu vollziehen.

This broader definition of productive labor does not invalidate the earlier definition but extends it:

The first definition given above of productive labor, a definition deduced from the very nature of the production of material objects, still remains correct for the collective laborer, considered as a whole. But it no longer holds good for each member taken individually.

Die obige ursprüngliche Bestimmung der produktiven Arbeit, aus der Natur der materiellen Produktion selbst abgeleitet, bleibt immer wahr für den Gesamtarbeiter, als Gesamtheit betrachtet. Aber sie gilt nicht mehr für jedes seiner Glieder, einzeln genommen.

Question 1034 *How does the development of co-operative labor-processes extend the concept of productive labor? Give examples.*

[Narrowing of the Concept of Productive Labor]

⇓ The notion of productive labor is also *narrowed*. Capitalism is more than the co-operative production of commodities, it is production of surplus-value:

On the other hand, however, our notion of productive labor becomes narrowed. Capitalist production is not merely the production of commodities, it is essentially the production of surplus-value. The laborer produces, not for himself, but for capital. It no longer suffices, therefore, that he should simply produce. He must produce surplus-value. That laborer alone is productive, who produces surplus-value for the capitalist, and thus works for the self-expansion of capital.

532:1 Andererseits aber verengt sich der Begriff der produktiven Arbeit. Die kapitalistische Produktion ist nicht nur Produktion von Ware, sie ist wesentlich Produktion von Mehrwert. Der Arbeiter produziert nicht für sich, sondern für das Kapital. Es genügt daher nicht länger, daß er überhaupt produziert. Er muß Mehrwert produzieren. Nur der Arbeiter ist produktiv, der Mehrwert für den Kapitalisten produziert oder zur Selbstverwertung des Kapitals dient.

↑ This is the definition of a productive laborer in capitalism. ⇓ Now a quick example:

If we may take an example from outside the sphere of production of material objects, a schoolmaster is a productive laborer when, in addition to belaboring the heads of his scholars, he works like a horse to enrich the

Steht es frei, ein Beispiel außerhalb der Sphäre der materiellen Produktion zu wählen, so ist ein Schulmeister produktiver Arbeiter, wenn er nicht nur Kinderköpfe bearbeitet, sondern sich selbst abarbeitet zur Bereiche-

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school proprietor. That the latter has laid out his capital in a teaching factory, instead of a sausage factory, does not alter the relation.

rung des Unternehmers. Daß letzterer sein Kapital in einer Lehrfabrik angelegt hat, statt in einer Wurstfabrik, ändert nichts an dem Verhältnis.

Question 1035 *How, on the other hand, is the concept of productive labor narrowed under capitalism? Give examples of labors that are necessary for the capitalist class or for society as a whole, and are nevertheless “unproductive” for capital.*

↓ The above definition implies that the question whether someone is a productive laborer is decided outside the production process, in the larger social context:

Hence the notion of a productive laborer implies not merely a relation between work and useful effect, between laborer and product of labor, but also a specific, social relation of production, a relation that has sprung up historically and stamps the laborer as the direct means of creating surplus-value.

Der Begriff des produktiven Arbeiters schließt daher keineswegs bloß ein Verhältnis zwischen Tätigkeit und Nutzeffekt, zwischen Arbeiter und Arbeitsprodukt ein, sondern auch ein spezifisch gesellschaftliches, geschichtlich entstandenes Produktionsverhältnis, welches den Arbeiter zum unmittelbaren Verwertungsmittel des Kapitals stempelt.

This has serious implications for the laborer himself or herself. Marx underlines this with a memorable phrase which summarizes the development that follows:

To be a productive laborer is, therefore, not a piece of luck, but a misfortune.

Produktiver Arbeiter zu sein ist daher kein Glück, sondern ein Pech.

Question 1036 *Why is it a misfortune to be a productive laborer under capitalism?*

↓ Before diving into the development fleshing out this phrase, Marx brings a few references to the literature which show that the economists agree with his definition of productive labor in capitalism: they consider that labor productive which creates surplus-value.

In Book IV, which treats of the history of the theory, it will be more clearly seen, that the production of surplus-value has at all times been made, by classical political economists, the distinguishing characteristic of the productive laborer.

Im Vierten Buch dieser Schrift, welches die Geschichte der Theorie behandelt, wird man näher sehn, daß die klassische politische Ökonomie von jeher die Produktion von Mehrwert zum entscheidenden Charakter des produktiven Arbeiters machte.

↑ All economists define productive labor as labor producing surplus-value. This is where they agree. ↓ But they disagree in their understanding of the origin of surplus-value.

Hence their definition of a productive laborer changes with their comprehension of the nature of surplus-value. Thus the Physiocrats insist that only agricultural labor is productive, since that alone, they say, yields a surplus-value. And they say so because, with them, surplus-value has no existence except in the form of rent.

Mit ihrer Auffassung von der Natur des Mehrwerts wechselt daher ihre Definition des produktiven Arbeiters. So erklären die Physiokraten, nur die Ackerbauarbeit sei produktiv, weil sie allein einen Mehrwert liefere. Für die Physiokraten existiert Mehrwert aber ausschließlich in der Form der Grundrente.

Question 1037 *How can labor be unproductive?*

16.1.b. [The Dialectic of Absolute and Relative Surplus-Value]

Since productive labor under capitalism is defined as labor producing surplus-value, Marx looks now at the two specific ways to produce surplus-value, namely, absolute and relative surplus-value:

The prolongation of the working-day beyond the point at which the laborer would have produced just an equivalent for the value of his labor-power, and the appropriation of that surplus-labor by capital, this is production of absolute surplus-value. It constitutes the general base of the capitalist system, and the starting-point for the production of relative surplus-value.

532:2/o Die Verlängerung des Arbeitstags über den Punkt hinaus, wo der Arbeiter nur ein Äquivalent für den Wert seiner Arbeitskraft produziert hätte, und die Aneignung dieser Mehrarbeit durch das Kapital—das ist die Produktion des absoluten Mehrwerts. Sie bildet die allgemeine Grundlage des kapitalistischen Systems und den Ausgangspunkt der Produktion des relativen Mehrwerts.

Relative surplus-value can only develop on the basis of absolute surplus-value, ↓ but unlike absolute surplus-value, it revolutionizes the technology:

The latter pre-supposes that the working-day is already divided into two parts, necessary labor, and surplus-labor. In order to prolong the surplus-labor, the necessary labor is shortened by methods whereby the equivalent for the wages is produced in less time. The production of absolute surplus-value turns exclusively upon the length of the working-day; the production of relative surplus-value, by contrast, revolutionizes out and out the technical processes of labor, and the composition of society.

Bei dieser ist der Arbeitstag von vornherein in zwei Stücke geteilt: notwendige Arbeit und Mehrarbeit. Um die Mehrarbeit zu verlängern, wird die notwendige Arbeit verkürzt durch Methoden, vermittelt deren das Äquivalent des Arbeitslohns in weniger Zeit produziert wird. Die Produktion des absoluten Mehrwerts dreht sich nur um die Länge des Arbeitstags; die Produktion des relativen Mehrwerts revolutioniert durch und durch die technischen Prozesse der Arbeit und die gesellschaftlichen Gruppierungen.

↑ The production of relative surplus-value engenders an entirely new mode of production. ↓ Marx calls it the “specifically capitalist mode of production” or “real subsumption of labor under capital,” and in contrast to this, capitalism prior to the production of relative surplus-value is called “formal subsumption of labor under capital.”

It therefore pre-supposes a specific mode, the capitalist mode of production, a mode which, along with its methods, means, and conditions, arises and develops itself spontaneously on the foundation afforded by the formal subsumption of labor under capital. In the course of this development, the formal subsumption is replaced by the real subsumption of labor under capital.

533:1 Sie unterstellt also eine spezifisch kapitalistische Produktionsweise, die mit ihren Methoden, Mitteln und Bedingungen selbst erst auf Grundlage der formellen Subsumtion der Arbeit unter das Kapital naturwüchsig entsteht und ausgebildet wird. An die Stelle der formellen tritt die reelle Subsumtion der Arbeit unter das Kapital.

↓ Besides formal and real subsumption, there are also situations in which the labor process is not (yet) subsumed under capital at all:

It will suffice merely to refer to certain intermediate forms, in which surplus-labor is not extorted by direct compulsion from

533:2 Es genügt bloßer Hinweis auf Zwitterformen, worin die Mehrarbeit weder durch direkten Zwang dem Produzenten

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the producer, nor the producer himself yet formally subjected to capital. In such forms, capital has not yet acquired the direct control of the labor-process. By the side of independent producers who carry on their handicrafts and agriculture in the traditional old-fashioned way, there stands the usurer or the merchant, with his usurer's capital or merchant's capital, feeding on them like a parasite. The predominance, in a society, of this form of exploitation excludes the capitalist mode of production; to which mode, however, this form may serve as a transition, as it did towards the close of the Middle Ages. Finally, as is shown by modern "domestic industry," some intermediate forms are here and there reproduced in the background of Modern Industry, though their physiognomy is totally changed.

↑ The "domestic industry" modern at Marx's time was the putting-out system. It is a kind of wage-labor, i.e., the underlying social form is not the same as the parasitic exploitation of medieval domestic labor by usury capital. Therefore also the "physiognomy" of the domestic labor process is quite different. This concludes Marx's brief discussion of formal and real subsumption.

↓ Despite the importance of relative surplus-value for the revolutionizing of the mode of production, relative surplus-value is not the dominant pole in the dialectic between absolute and relative surplus-value.

If, on the one hand, the mere formal subsumption of labor under capital suffices for the production of absolute surplus-value, if, e.g., it is sufficient that handicraftsman who previously worked on their own account, or as apprentices of a master, should become wage laborers under the direct control of a capitalist; so, on the other hand, we have seen, how the methods of producing relative surplus-value, are, at the same time, methods of producing absolute surplus-value. Nay, more, the excessive prolongation of the working-day turned out to be the peculiar product of Modern Industry. Generally speaking, the specifically capitalist mode of production ceases to be a mere means of producing relative surplus-value, so soon as that mode has conquered an entire branch of production; and still more so, so soon as it has conquered all the important branches.

ausgepumpt wird, noch auch dessen formelle Unterordnung unter das Kapital eingetreten ist. Das Kapital hat sich hier noch nicht unmittelbar des Arbeitsprozesses bemächtigt. Neben die selbständigen Produzenten, die in überlieferter, urväterlicher Betriebsweise handwerkern oder ackerbauen, tritt der Wucherer oder Kaufmann, das Wucherkapital oder das Handelskapital, das sie parasitenmäßig aussaugt. Vorherrschaft dieser Exploitationsform in einer Gesellschaft schließt die kapitalistische Produktionsweise aus, zu der sie andererseits, wie im späten Mittelalter, den Übergang bilden kann. Endlich, wie das Beispiel der modernen Hausarbeit zeigt, werden gewisse Zwitterformen auf dem Hintergrund der großen Industrie stellenweis reproduziert, wenn auch mit gänzlich veränderter Physiognomie.

533:3 Wenn zur Produktion des absoluten Mehrwerts die bloß formelle Subsumtion der Arbeit unter das Kapital genügt, z.B. daß Handwerker, die früher für sich selbst oder auch als Gesellen eines Zunftmeisters arbeiteten, nun als Lohnarbeiter unter die direkte Kontrolle des Kapitalisten treten, zeigt sich andererseits, wie die Methoden zur Produktion des relativen Mehrwerts zugleich Methoden zur Produktion des absoluten Mehrwerts sind. Ja, die maßlose Verlängerung des Arbeitstags stellte sich als eigenstes Produkt der großen Industrie dar. Überhaupt hört die spezifisch kapitalistische Produktionsweise auf, bloßes Mittel zur Produktion des relativen Mehrwerts zu sein, sobald sie sich eines ganzen Produktionszweigs, und noch mehr, sobald sie sich aller entscheidenden Produktionszweige bemächtigt hat. Sie wird jetzt allgemeine, gesellschaftlich

16.1. [The Specifically Capitalist Mode of Production]

It then becomes the general, socially predominant form of production. As a special method of producing relative surplus-value, it remains effective only, first, in so far as it seizes upon industries that previously were only formally subject to capital, that is, so far as it propagates; secondly, in so far as the industries that have been taken over by it, continue to be revolutionized by changes in the methods of production.

↓ The unity between absolute and relative surplus-value:

From one standpoint, any distinction between absolute and relative surplus-value appears illusory. Relative surplus-value is absolute, since it compels the absolute prolongation of the working-day beyond the labor-time necessary to the existence of the laborer himself. Absolute surplus-value is relative, since it makes necessary such a development of the productiveness of labor, as will allow of the necessary labor-time being confined to a portion of the working-day.

↓ But their difference comes forward if surplus-value changes:

But if we investigate the movement of surplus-value, this appearance of identity vanishes. Once the capitalist mode of production is established and become general, the difference between absolute and relative surplus-value makes itself felt, whenever there is a question of raising the rate of surplus-value. Assuming that labor-power is paid for at its value, we are confronted by this alternative: given the productiveness of labor and its normal intensity, the rate of surplus-value can be raised only by the actual prolongation of the working-day; on the other hand, given the length of the working-day, that rise can be effected only by a change in the relative magnitudes of the components of the working-day, viz., necessary labor and surplus-labor; a change which, if the wages are not to fall below the value of labor-power, presupposes a change either in the productiveness or in the intensity of the labor.

herrschende Form des Produktionsprozesses. Als besondere Methode zur Produktion des relativen Mehrwerts wirkt sie nur noch, erstens soweit sie dem Kapital bisher nur formell untergeordnete Industrien ergreift, also in ihrer Propaganda. Zweitens, soweit ihr bereits anheimgefallene Industrien fortwährend revolutioniert werden durch Wechsel der Produktionsmethoden.

533:4/o Von gewissem Gesichtspunkt scheint der Unterschied zwischen absolutem und relativem Mehrwert überhaupt illusorisch. Der relative Mehrwert ist absolut, denn er bedingt absolute Verlängerung des Arbeitstags über die zur Existenz des Arbeiters selbst notwendige Arbeitszeit. Der absolute Mehrwert ist relativ, denn er bedingt eine Entwicklung der Arbeitsproduktivität, welche erlaubt, die notwendige Arbeitszeit auf einen Teil des Arbeitstags zu beschränken.

Faßt man aber die Bewegung des Mehrwerts ins Auge, so verschwindet dieser Schein der Einerleiheit. Sobald die kapitalistische Produktionsweise einmal hergestellt und allgemeine Produktionsweise geworden, macht sich der Unterschied zwischen absolutem und relativem Mehrwert fühlbar, sobald es gilt, die Rate des Mehrwerts überhaupt zu steigern. Vorausgesetzt, die Arbeitskraft werde zu ihrem Wert bezahlt, stehn wir dann vor dieser Alternative: Die Produktivkraft der Arbeit und ihren Normalgrad von Intensität gegeben, ist die Rate des Mehrwerts nur erhöhbar durch absolute Verlängerung des Arbeitstags; andererseits, bei gegebener Grenze des Arbeitstags, ist die Rate des Mehrwerts nur erhöhbar durch relativen Größenwechsel seiner Bestandteile, der notwendigen Arbeit und der Mehrarbeit, was seinerseits, soll der Lohn nicht unter den Wert der Arbeitskraft sinken, Wechsel in der Produktivität oder Intensität der Arbeit voraussetzt.

↑ This is a nutshell summary of Marx's argument in chapter Twelve.

16. Absolute and Relative Surplus-Value

Question 1038 *Someone argues: The absolute surplus-value is relative because productivity must be so high that the worker must work only a part of the day for his own subsistence. The relative surplus-value is absolute because even relative surplus-value requires prolongation of the working-day over the necessary labor. Right or wrong?*

Question 1039 *In what respects do absolute and relative surplus-value depend on each other, cause each other, and blend together? In which cases can they be clearly distinguished?*

16.2. [Natural basis of Necessary Labor]

As formulated in , Marx discusses here the qualitative dimension of the productivity of labor: what are the conditions for labor to be productive for capital? In capitalism, labor seems naturally productive for capital. Marx is investigating how this semblance arises and to what extent it is justified. His verdict will be: necessary labor has a natural basis, but surplus-labor does not.

16.2.a. [Labor of Sufficient Productivity Condition for Exploitation]

⇓ Exploitation possible only if productiveness of labor is high enough that not every laborer is busy all day to produce for himself or herself.

If the laborer requires all his time to produce the necessary means of subsistence for maintaining himself and his race, he has no time left in which to work gratis for others. Without a certain degree of productiveness in his labor, he has no such superfluous time at his disposal; without such superfluous time, no surplus-labor, and therefore no capitalists, no slave-owners, no feudal lords, in one word, no class of large proprietors.¹

¹ “The very existence of the master-capitalists, as a distinct class, is dependent on the productiveness of industry.” (Ramsay, l.c., p. 206.) “If each man’s labor were but enough to produce his own food, there could be no property.” (Ravenstone, l.c. p. 14, 15.)

534:1 Braucht der Arbeiter alle seine Zeit, um die zur Erhaltung seiner selbst und seiner Race nötigen Lebensmittel zu produzieren, so bleibt ihm keine Zeit, um unentgeltlich für dritte Personen zu arbeiten. Ohne einen gewissen Produktivitätsgrad der Arbeit keine solche disponible Zeit für den Arbeiter, ohne solche überschüssige Zeit keine Mehrarbeit und daher keine Kapitalisten, aber auch keine Sklavenhalter, keine Feudalbarone, in einem Wort keine Großbesitzerklasse.¹

¹ „Das bloße Vorhandensein der zu Kapitalisten gewordenen Meister als besondere Klasse hängt ab von der Produktivität der Arbeit.“ (Ramsay, l.c. p. 206.) „Wenn die Arbeit jedes Mannes nur genügen würde, seine eigne Nahrung zu produzieren, könnte es kein Eigentum geben.“ (Ravenstone, l.c. p. 14.)

16.2.b. [Only Necessary Labor has Natural Basis, Surplus Labor Does Not]

The above condition only explains the possibility, not the reality of exploitation (as Marx will say in). ⇓ If one calls this condition a “natural basis” of surplus-value one must therefore

be aware that the role of nature is very small. Marx uses a gruesome and funny example to drive home this point:

Thus we may say that surplus-value rests on a natural basis—but only in the very general sense that there is no natural obstacle absolutely preventing one man from disburdening himself of the labor requisite for his own existence, and burdening another with it. Neither is there, for instance, an unconquerable natural obstacle preventing one man from eating the flesh of another.^{1a}

534:2/o So kann von einer Naturbasis des Mehrwerts gesprochen werden, aber nur in dem ganz allgemeinen Sinn, daß kein absolutes Naturhindernis den einen abhält, die zu seiner eignen Existenz nötige Arbeit von sich selbst ab- und einem andern aufzuwälzen, z.B. ebensowenig wie absolute Naturhindernisse die einen abhalten, das Fleisch der andern als Nahrung zu verwenden.^{1a}

↑ Someone who says exploitation is natural because labor is able to produce more than is necessary for the subsistence of the laborer would also have to say that cannibalism is natural because human flesh is edible for humans. ↓ According to the footnote, the number of cannibals alive during Marx's time was still amazingly high.

^{1a} According to a recent calculation, there are yet at least 4,000,000 cannibals in those parts of the earth which have already been explored.

^{1a} Nach einer kürzlich gemachten Berechnung leben allein in den bereits erforschten Erdgegenden mindestens noch vier Millionen Kannibalen.

Question 1040 In 647:1, Marx argues in effect that exploitation is as natural as cannibalism. Explain how he arrives at this seemingly far-fetched conclusion. Do you agree that exploitation is as natural as cannibalism?

Nevertheless, today it seems that labor is naturally productive of surplus-value:

No mystical imaginations must in any way be connected, as sometimes happens, with this historically developed productiveness of labor.

Es sind durchaus nicht, wie es hier und da geschehn, mystische Vorstellungen mit dieser naturwüchsigen Produktivität der Arbeit zu verbinden.

↑ An imagination is an a-theoretical picture thinking, and the attribute “mystical” shows Marx's disdain for the conclusion, perhaps instigated by the direct experience in capitalism that all labor is exploited, that labor produces surplus-value somehow by nature. In , Marx says human labor has no such “occult quality.” ↓ Instead of jumping to this unjustified conclusion, Marx investigates the issue in the correct way, namely, he looks in history how and when this possibility has become reality:

It is only after men have raised themselves above the rank of animals, when therefore their labor has already been socialized to some extent, that a state of things arises in which the surplus-labor of the one becomes a condition of existence for the other.

Nur sobald die Menschen sich aus ihren ersten Tierzuständen herausgearbeitet, ihre Arbeit selbst also schon in gewissem Grad vergesellschaftet ist, treten Verhältnisse ein, worin die Mehrarbeit des einen zur Existenzbedingung des andern wird.

↑ His first finding is that productiveness of labor is not the only condition, another condition for surplus-labor is a socialized labor process. Exploitation is the transfer of the burden of labor from one to the other. This is a social process. It is only possible if the labor process itself has been socialized. ↓ Now a brief sketch about how productivity of labor and exploitation co-evolved historically:

At the dawn of civilisation the productiveness acquired by labor is small, but so too

In den Kulturanfängen sind die erworbnen Produktivkräfte der Arbeit gering, aber so

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are the wants which develop with and by the means of satisfying them. Further, at that early period, the portion of society that lives on the labor of others is infinitely small compared with the mass of direct producers.

↑ At the beginning, exploitation can only be a marginal phenomenon, for the simple reason that not many people can live off the labor of others.

Along with the progress in the productiveness of labor, that small portion of society increases both absolutely and relatively.²

² “Among the wild Indians in America, almost everything is the laborer’s, 99 parts of a hundred are to be put upon the account of labor. In England, perhaps, the laborer has not 2/3.” (The Advantages of the East India Trade, etc., p. 73.)

↓ But this development of productivity is no longer natural but it is a historical condition. This is another reason why it is wrong to say that modern capitalism has a natural basis:

By the way, capital with its accompanying relations springs up from an economic soil that is the product of a long process of development. The productiveness of labor that serves as its foundation and starting-point, is a gift, not of nature, but of a history embracing thousands of centuries.

↑ Thousands of centuries seems to be an overstatement or a writing error. The neolithic (agriculture) began around 10,200 BC, i.e., 122 centuries ago.

The remark about the historical roots of capitalism was only a digression. We are still at the beginning of Marx’s account of the historical development of productivity and, with it, exploitation. After saying that low productivity means that only a small portion of the population can live off the labor of others, Marx looks now ↓ for the conditions for high labor productivity. In early times, abundance of means of subsistence, and at a higher stage, abundance of means of production was decisive.

Apart from the shape of social production, which may exhibit a greater or lesser degree of development, the productiveness of labor is tied to natural conditions—conditions arising either from the nature of man himself (race, etc.), or from surrounding nature.

↑ Marx thinks that there are natural differences between human races. This dovetails with his formulation in 70:2 that equality is a “commonly held prejudice” (*Volksvorurteil*). ↓ But he does not elaborate. He concentrates on the external physical conditions for productivity. The external physical conditions fall into two great economic classes, (1) Natural wealth in means of subsistence, i.e., a fruit-

sind die Bedürfnisse, die sich mit und an den Mitteln ihrer Befriedigung entwickeln. Ferner ist in jenen Anfängen die Proportion der Gesellschaftsteile, die von fremder Arbeit leben, verschwindend klein gegen die Masse der unmittelbaren Produzenten.

Mit dem Fortschritt der gesellschaftlichen Produktivkraft der Arbeit wächst diese Proportion absolut und relativ.²

² „Bei den wilden Indianern in Amerika gehört fast alles dem Arbeiter. 99 Teile von hundert sind dem Konto Arbeit zuzuschreiben. In England hat der Arbeiter vielleicht nicht einmal 2/3.“ („The Advantages of the East India etc.“, p. 72, 73.)

Das Kapitalverhältnis entspringt übrigens auf einem ökonomischen Boden, der das Produkt eines langen Entwicklungsprozesses ist. Die vorhandne Produktivität der Arbeit, wovon es als Grundlage ausgeht, ist nicht Gabe der Natur, sondern einer Geschichte, die Tausende von Jahrhunderten umfaßt.

535:1 Von der mehr oder minder entwickelten Gestalt der gesellschaftlichen Produktion abgesehen, bleibt die Produktivität der Arbeit an Naturbedingungen gebunden. Sie sind alle rückführbar auf die Natur des Menschen selbst, wie Race usw., und die ihn umgebende Natur.

Die äußeren Naturbedingungen zerfallen ökonomisch in zwei große Klassen, natürlichen Reichtum an Lebensmitteln, also Bo-

ful soil, waters teeming with fish, etc., and (2), natural wealth in the instruments of labor, such as waterfalls, navigable rivers, wood, metal, coal, etc. At the dawn of civilisation, it is the first class that turns the scale; at a higher stage of development, it is the second. Compare, for example, England with India, or in ancient times, Athens and Corinth with the shores of the Black Sea.

denfruchtbarkeit, fischreiche Gewässer usw., und natürlichen Reichtum an Arbeitsmitteln, wie lebendige Wassergefälle, schiffbare Flüsse, Holz, Metalle, Kohle usw. In den Kulturanfängen gibt die erstere, auf höherer Entwicklungsstufe die zweite Art des natürlichen Reichtums den Ausschlag. Man vergleiche z.B. England mit Indien oder, in der antiken Welt, Athen und Korinth mit den Uferländern des Schwarzen Meeres.

↑ Apparently, Marx classifies India and the shores of the Black Sea as abundant in means of subsistence, and England and Athens/Corinth abundant in means of production. ↓ Abundance of means of subsistence, combined with few wants, makes necessary labor short, which enables big public works (pyramids). But it does not promote increases in productivity as much as the abundance and variety in means of production does.

The fewer the number of natural wants imperatively calling for satisfaction, and the greater the natural fertility of the soil and the favourableness of the climate, so much less is the labor-time necessary for the maintenance and reproduction of the producer. So much greater therefore can be the excess of his labors for others over his labor for himself. Diodorus long ago remarked this in relation to the ancient Egyptians.

535:2–536:0 Je geringer die Zahl der absolut zu befriedigenden Naturbedürfnisse und je größer die natürliche Bodenfruchtbarkeit und Gunst des Klimas, desto geringer die zur Erhaltung und Reproduktion des Produzenten notwendige Arbeitszeit. Desto größer kann also der Überschuß seiner Arbeit für andere über seine Arbeit für sich selbst sein. So bemerkt schon Diodor über die alten Ägypter:

“It is altogether incredible how little trouble and expense the bringing up of their children causes them. They cook for them the first simple food at hand; they also give them the lower part of the papyrus stem to eat, so far as it can be roasted in the fire, and the roots and stalks of marsh plants, some raw, some boiled and roasted. Most of the children go without shoes and unclothed, for the air is so mild. Hence a child, until he is grown up, costs his parents not more, on the whole, than twenty drachmas. It is this, chiefly, which explains why the population of Egypt is so numerous, and, therefore, why so many great works can be undertaken.”³

„Es ist ganz unglaublich, wie wenig Mühe und Kosten die Erziehung ihrer Kinder ihnen verursacht. Sie kochen ihnen die nächste beste einfache Speise; auch geben sie ihnen von der Papierstaude den untern Teil zu essen, soweit man ihn im Feuer rösten kann, und die Wurzeln und Stengel der Sumpfwächse, teils roh, teils gesotten und gebraten. Die meisten Kinder gehn ohne Schuhe und unbekleidet, da die Luft so mild ist. Daher kostet ein Kind seinen Eltern, bis es erwachsen ist, im ganzen nicht über zwanzig Drachmen. Hieraus ist es hauptsächlich zu erklären, daß in Ägypten die Bevölkerung so zahlreich ist und darum so viele große Werke angelegt werden konnten.“³

³ Diodorus, l.c., I. I., c. 80.

³ Diodor, l.c., I. I., c. 80.

↓ Marx disagrees with Diodorus's last sentence which proclaims the population to be a natural basis of exploitation. It is not the absolute size of the population but the proportion of it which was disponible.

Nevertheless the grand structures of ancient Egypt are less due to the extent of its population than to the large proportion of it that

536:1 Indes sind die großen Bauwerke des alten Ägyptens dem Umfang seiner Bevölkerung weniger geschuldet, als der

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was freely disposable. Just as the individual laborer can do more surplus-labor in proportion as his necessary labor-time is less, so with regard to the working population. The smaller the part of it which is required for the production of the necessary means of subsistence, so much the greater is the part that can be set to do other work.

↑ Another absolute/relative distinction.

↓ Again a side remark about capitalism illustrating the general principles discussed here: capitalism did not originate in the lush tropics but in the temperate zones:

Capitalist production once assumed, then, all other circumstances remaining the same, and given the length of the working day, the quantity of surplus-labor will vary with the physical conditions of labor, especially with the fertility of the soil. But it by no means follows from this that the most fruitful soil is the most fitted for the growth of the capitalist mode of production. This mode is based on the dominion of man over nature. Where nature is too lavish, she “keeps him in hand, like a child in leading-strings.” She does not impose upon him any necessity to develop himself.⁴ It is not the tropics with their luxuriant vegetation, but the temperate zone, that is the mother-country of capital.

⁴ “The first (natural wealth) as it is most noble and advantageous, so doth it make the people careless, proud, and given to all excesses; whereas the second enforceth vigilancy, literature, arts and policy.” (England’s Treasure by Foreign Trade. Or the Balance of our Foreign Trade is the Rule of our Treasure. Written by Thomas Mun of London, merchant, and now published for the common good by his son John Mun. London, 1669, p. 181, 182.) “Nor can I conceive a greater curse upon a body of people, than to be thrown upon a spot of land, where the productions for subsistence and food were, in great measure, spontaneous, and the climate required or admitted little care for raiment and covering . . . there may be an extreme on the other side. A soil incapable of produce by labor is quite as bad as a soil that produces plentifully without any labor.” (An Inquiry into the Present High Price of Provisions. Lond. 1767, p. 10.)

großen Proportion, worin sie disponibel war. Wie der individuelle Arbeiter um so mehr Mehrarbeit liefern kann, je geringer seine notwendige Arbeitszeit, so, je geringer der zur Produktion der notwendigen Lebensmittel erheischte Teil der Arbeiterbevölkerung, desto größer ihr für andres Werk disponibler Teil.

536:2/o Die kapitalistische Produktion einmal vorausgesetzt, wird, unter sonst gleichbleibenden Umständen und bei gegebener Länge des Arbeitstags, die Größe der Mehrarbeit mit den Naturbedingungen der Arbeit, namentlich auch der Bodenfruchtbarkeit, variieren. Es folgt aber keineswegs umgekehrt, daß der fruchtbarste Boden der geeignetste zum Wachstum der kapitalistischen Produktionsweise. Sie unterstellt Herrschaft des Menschen über die Natur. Eine zu verschwenderische Natur „hält ihn an ihrer Hand wie ein Kind am Gängelband“. Sie macht seine eigne Entwicklung nicht zu einer Naturnotwendigkeit.⁴ Nicht das tropische Klima mit seiner überwuchernden Vegetation, sondern die gemäßigte Zone ist das Mutterland des Kapitals.

⁴ „Da der erste“ (der natürliche Reichtum) „höchst nobel und vorteilhaft ist, macht er das Volk sorglos, stolz und allen Ausschweifungen ergeben; der zweite dagegen erzwingt Sorgfalt, Gelehrsamkeit, Kunstfertigkeit und Staatsklugheit.“ („England’s Treasure by Foreign Trade. Or the Balance of our Foreign Trade is the Rule of our Treasure. Written by Thomas Mun, of London, Merchant, and now published for the common good by his son John Mun“, Lond. 1669, p. 181, 182.) „Auch kann ich mir für die Gesamtheit eines Volkes keinen schlimmeren Fluch vorstellen, als auf einen Fleck Erde gesetzt zu sein, auf dem die Erzeugung von Subsistenz- und Nahrungsmitteln zum großen Teil selbsttätig erfolgt und das Klima wenig Sorge für Kleidung und Obdach erfordert oder zuläßt . . . möglich ist alldings auch ein Extrem nach der andren Seite. Ein Boden, der trotz Arbeit keine Früchte hervorbringen kann, ist ebenso schlecht wie ein Boden,

der ohne Arbeit reichlich Produkte erzeugt.“ (N. Forster,) „An Inquiry into the Present High Price of Provisions“, Lond. 1767, p. 10.)

↓ This is not only true for capitalism but for any technologically advanced production. Not fertility itself, but differentiation of soils, changes of seasons form social basis for divisions of labor, and the necessity to control natural forces (irrigation) is the basis of big industry:

It is not the mere fertility of the soil, but the differentiation of the soil, the variety of its natural products, the changes of the seasons, which form the physical basis for the social division of labor, and which, by changes in the natural surroundings, spur man on to the multiplication of his wants, his capabilities, his means and modes of labor. It is the necessity of bringing a natural force under the control of society, of economizing, of appropriating or subduing it on a large scale by the work of man's hand, that first plays the decisive part in the history of industry. Examples are the irrigation works in Egypt,⁵ Lombardy, Holland, or in India and Persia, where irrigation by means of artificial canals, not only supplies the soil with the water indispensable to it, but also carries down to it, in the shape of sediment from the hills, mineral fertilisers. The secret of the flourishing state of industry in Spain and Sicily under the dominion of the Arabs lay in their irrigation works.⁶

Es ist nicht die absolute Fruchtbarkeit des Bodens, sondern seine Differenzierung, die Mannigfaltigkeit seiner natürlichen Produkte, welche die Naturgrundlage der gesellschaftlichen Teilung der Arbeit bildet und den Menschen durch den Wechsel der Naturumstände, innerhalb deren er haust, zur Vermannigfachung seiner eignen Bedürfnisse, Fähigkeiten, Arbeitsmittel und Arbeitsweisen spornt. Die Notwendigkeit, eine Naturkraft gesellschaftlich zu kontrollieren, damit hauszuhalten, sie durch Werke von Menschenhand auf großem Maßstab erst anzueignen oder zu zähmen, spielt die entscheidendste Rolle in der Geschichte der Industrie. So z.B. die Wasserreglung in Ägypten⁵, Lombardei, Holland usw. Oder in Indien, Persien usw., wo die Überrieselung durch künstliche Kanäle dem Boden nicht nur das unentbehrliche Wasser, sondern mit dessen Geschlämme zugleich den Mineraldünger von den Bergen zuführt. Das Geheimnis der Industrieblüte von Spanien und Sizilien unter arabischer Herrschaft war die Kanalisation.⁶

⁵ The necessity for predicting the rise and fall of the Nile created Egyptian astronomy, and with it the dominion of the priests, as directors of agriculture. “Le solstice est le moment de l'année ou commence la crue du Nil, et celui que les Egyptiens ont du observer avec le plus d'attention... C'était cette année tropique qu'il leur importait de marquer pour se diriger dans leurs opérations agricoles. Ils durent donc chercher dans le ciel un signe apparent de son retour.” (Cuvier: Discours sur les révolutions du globe, ed. Hoefer, Paris, 1863, p. 141.)

⁵ Die Notwendigkeit, die Perioden der Nilbewegung zu berechnen, schuf die ägyptische Astronomie und mit ihr die Herrschaft der Priesterkaste als Leiterin der Agrikultur. „Die Sonnenwende ist der Zeitpunkt des Jahres, an dem das Steigen des Nils beginnt und den daher die Ägypter mit der größten Sorgfalt beobachten mußten ... Es war dieses Äquinoktialjahr, das sie festsetzen mußten, um sich in ihren agrikolen Operationen danach zu richten. Sie mußten daher am Himmel ein sichtbares Zeichen seiner Wiederkehr suchen.“ (Cuvier, „Discours sur les révolutions du globe“, éd. Hoefer, Paris 1863, p. 141.)

⁶ One of the material bases of the power of the state over the small disconnected producing organisms in India, was the regulation of the water

⁶ Eine der materiellen Grundlagen der Staatsmacht über die zusammenhangslosen kleinen Produktionsorganismen Indiens war Regelung der

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supply. The Mahometan rulers of India understood this better than their English successors. It is enough to recall to mind the famine of 1866, which cost the lives of more than a million Hindus in the district of Orissa, in the Bengal presidency.

So far, this historical sketch emphasized the conditions for increases in productivity. What else is needed to translate higher productivity into more exploitation?

Favourable natural conditions alone, give us only the possibility, never the reality, of surplus-labor, nor, consequently, of surplus-value or a surplus-product. The result of difference in the natural conditions of labor is this, that the same quantity of labor satisfies, in different countries, a different mass of requirements,⁷ consequently, that under circumstances in other respects analogous, the necessary labor-time is different.

⁷ “There are no two countries which furnish an equal number of the necessities of life in equal plenty, and with the same quantity of labor. Men’s wants increase or diminish with the severity or temperateness of the climate they live in; consequently, the proportion of trade which the inhabitants of different countries are obliged to carry on through necessity cannot be the same, nor is it practicable to ascertain the degree of variation farther than by the degrees of Heat and Cold; from whence one may make this general conclusion, that the quantity of labor required for a certain number of people is greatest in cold climates, and least in hot ones; for in the former men not only want more clothes, but the earth more cultivating than in the latter.” (An Essay on the Governing Causes of the Natural Rate of Interest. Lond. 1750. p. 60.) The author of this epoch-making anonymous work is J. Massy. Hume took his theory of interest from it.

Marx makes here an important point: natural abundance affects necessary labor, but it does not directly affect surplus-labor.

These conditions affect surplus-labor only as natural limits, *i.e.*, by fixing the points at which labor for others can begin. In proportion as industry advances, these natural limits recede.

↓ Marx interjects here another indirect argument why it seems today as if labor was naturally productive for capital: because labor can only be performed if it is productive for

Wasserzufuhr. Die muhammedanischen Herrscher Indiens verstanden dies besser als ihre englischen Nachfolger. Wir erinnern nur an die Hungersnot von 1866, die mehr als einer Million Hindus in dem Distrikt von Orissa, Präsidentschaft Bengalen, das Leben kostete.

537:1–538:1 Die Gunst der Naturbedingungen liefert immer nur die Möglichkeit, niemals die Wirklichkeit der Mehrarbeit, also des Mehrwerts oder des Mehrprodukts. Die verschiedenen Naturbedingungen der Arbeit bewirken, daß dieselbe Quantität Arbeit in verschiedenen Ländern verschiedene Bedürfnismassen befriedigt,⁷ daß also, unter sonst analogen Umständen, die notwendige Arbeitszeit verschieden ist.

⁷ „Es gibt keine zwei Länder, die eine gleiche Zahl der notwendigen Lebensmittel in gleicher Fülle und mit gleichem Aufwand an Arbeit liefern. Die Bedürfnisse der Menschen wachsen oder vermindern sich mit der Strenge oder Milde des Klimas, in dem sie leben, und folglich kann das verhältnismäßige Ausmaß an Erwerbstätigkeit, das die Bewohner der verschiedenen Länder notwendigerweise betreiben müssen, nicht gleich sein, noch läßt sich der Grad der Verschiedenheit anders als nach den Hitze- und Kältegraden ermitteln. Man kann daher allgemein schließen, daß die Menge der für den Unterhalt einer gewissen Menschenzahl erforderlichen Arbeit in kalten Klimaten am größten, in warmen am geringsten ist; in jenen brauchen die Menschen nicht nur mehr Kleidung, sondern der Boden muß auch besser bebaut werden als in diesen.“ (An Essay on the Governing Causes of the Natural Rate of Interest“, Lond. 1750, p. 59.) Der Verfasser dieser epochemachenden anonymen Schrift ist J. Massie. Hume nahm daraus seine Zinstheorie.

Auf die Mehrarbeit wirken sie nur als Naturschranke, d.h. durch die Bestimmung des Punkts, wo die Arbeit für andre beginnen kann. In demselben Maß, worin die Industrie vortritt, weicht diese Naturschranke zurück.

capital.

In the midst of our West European society, where the laborer is allowed to work for his own livelihood only if he also performs surplus-labor, the idea easily takes hold that it is an inherent quality of human labor to furnish a surplus-product.⁸

⁸ “Chaque travail doit (this appears also to be part of the droits et devoirs du citoyen) laisser un excédant.” Proudhon.

↓ In order to refute the notion that considers profits to be the natural outgrowth of labor, Marx brings an example of a primitive society in which necessary labor is very short. Instead of a high surplus this high productivity leads to lots of free time:

But consider, for example, an inhabitant of the eastern islands of the Asiatic Archipelago, where sago grows wild in the forests.

“When the inhabitants have convinced themselves, by boring a hole in the tree, that the pith is ripe, the trunk is cut down and divided into several pieces, the pith is extracted, mixed with water and filtered: it is then quite fit for use as sago. One tree commonly yields 300 lbs., and occasionally 500 to 600 lbs. There, then, people go into the forests, and cut bread for themselves, just as with us they cut firewood.”⁹

⁹ F. Schouw: “Die Erde, die Pflanze und der Mensch,” 2. Ed. Leipz. 1854, p. 148.

↓ Although generally, higher productivity is accompanied by higher exploitation, Marx adduces this primitive society to make his point that the productivity of labor alone is not enough reason to explain surplus-value.

Suppose now such an East Asian bread-cutter requires 12 working hours a week for the satisfaction of all his wants. Nature’s direct gift to him is plenty of leisure time.

↑ Presumably this is how the primitive society adduced by Marx uses its natural abundance. ↓ Alternatives would be possible, but they require additional drivers:

Before he can apply this leisure time productively for himself, a whole series of historical events is required; before he spends it in surplus-labor for strangers, compulsion is necessary. If capitalist production were introduced, the honest fellow would perhaps have to work six days a week, in order to appropriate to himself the product of one

Mitten in der westeuropäischen Gesellschaft, wo der Arbeiter die Erlaubnis, für seine eigne Existenz zu arbeiten, nur durch Mehrarbeit erkaufte, wird sich leicht eingebildet, es sei eine der menschlichen Arbeit eingeborne Qualität, ein Surplusprodukt zu liefern.⁸

⁸ „Jede Arbeit muß“ (scheint auch zu den droits und devoirs du citoyen zu gehören) „einen Überschuß lassen.“ (Proudhon)

Man nehme aber z.B. den Einwohner der östlichen Inseln des asiatischen Archipielagus, wo der Sago wild im Walde wächst.

„Wenn die Einwohner, indem sie ein Loch in den Baum bohren, sich davon überzeugt haben, daß das Mark reif ist, so wird der Stamm umgeschlagen und in mehrere Stücke geteilt, das Mark wird herausgekratzt, mit Wasser gemischt und geseiht, es ist dann vollkommen brauchbares Sagomehl. Ein Baum gibt gemeinlich 300 Pfund und kann 500 bis 600 Pfund geben. Man geht dort also in den Wald und schneidet sich sein Brot, wie man bei uns sein Brennholz schlägt.“⁹

⁹ F. Schouw, „Die Erde, die Pflanze und der Mensch“, 2. Aufl., Leipzig 1854, p. 148.

538:2 Gesetzt, ein solcher ostasiatischer Brotschneider brauche 12 Arbeitsstunden in der Woche zur Befriedigung aller seiner Bedürfnisse. Was ihm die Gunst der Natur unmittelbar gibt, ist viel Mußezeit.

Damit er diese produktiv für sich selbst verwende, ist eine ganze Reihe geschichtlicher Umstände, damit er sie in Mehrarbeit für fremde Personen verausgabe, ist äußerer Zwang erheischt. Würde kapitalistische Produktion eingeführt, so müßte der Brave vielleicht 6 Tage in der Woche arbeiten, um sich selbst das Produkt eines Arbeitstags

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working day. The bounty of Nature does not explain why he would then have to work 6 days a week, or why he must furnish 5 days of surplus-labor. It explains only why his necessary labor-time would be limited to one day a week. But in no case would his surplus-product arise from some occult quality inherent in human labor.

anzueignen. Die Gunst der Natur erklärt nicht, warum er jetzt 6 Tage in der Woche arbeitet oder warum er 5 Tage Mehrarbeit liefert. Sie erklärt nur, warum seine notwendige Arbeitszeit auf einen Tag in der Woche beschränkt ist. In keinem Fall aber entspränge sein Mehrprodukt aus einer der menschlichen Arbeit eingebornen, okkulten Qualität.

↓ At the end of this historical sketch a brief paragraph about the parallel ideology which thinks profits are produced by capital. Compare .

Thus, not only does the historically developed social productiveness of labor, but also its natural productiveness, appear to be productiveness of the capital with which that labor is incorporated.

538:3 Wie die geschichtlich entwickelten, gesellschaftlichen, so erscheinen die naturbedingten Produktivkräfte der Arbeit als Produktivkräfte des Kapitals, dem sie einverleibt wird.—

↑ Important result of the above discussion.

16.3. [Critique of John Stuart Mill]

As is often the case, Marx devotes the last few pages of the chapter to a critical survey of the literature. After a few sentences about Ricardo he discusses in detail John Stuart Mill.

Ricardo never concerns himself about the origin of surplus-value. He treats it as a thing inherent in the capitalist mode of production, a mode which in his eyes is the natural form of social production. Whenever he discusses the productiveness of labor, he seeks in it, not the cause of surplus-value, but the cause that determines the magnitude of that value. On the other hand, his school has openly proclaimed the productiveness of labor to be the originating cause of profit (read: surplus-value). This at all events is a progress as against the mercantilists who, on their side, derived the excess of the price over the cost of production of the product, from the act of exchange, from the product being sold above its value. Nevertheless, Ricardo's school simply shirked the problem, they did not solve it. In fact these bourgeois economists instinctively saw, and rightly so, that it is very dangerous to stir too deeply the burning question of the origin of surplus-value.

539:1 Ricardo kümmert sich nie um den Ursprung des Mehrwerts. Er behandelt ihn wie eine der kapitalistischen Produktionsweise, der in seinen Augen natürlichen Form der gesellschaftlichen Produktion, inhärente Sache. Wo er von der Produktivität der Arbeit spricht, da sucht er in ihr nicht die Ursache des Daseins von Mehrwert, sondern nur die Ursache, die seine Größe bestimmt. Dagegen hat seine Schule die Produktivkraft der Arbeit laut proklamiert als die Entstehungsursache des Profits (lies: Mehrwerts). Jedenfalls ein Fortschritt gegenüber den Merkantilisten, die ihrerseits den Überschuß des Preises der Produkte über ihre Produktionskosten aus dem Austausch herleiten, aus ihrem Verkauf über ihren Wert. Trotzdem hatte auch Ricardos Schule das Problem bloß umgangen, nicht gelöst. In der Tat hatten diese bürgerlichen Ökonomen den richtigen Instinkt, es sei sehr gefährlich, die brennende Frage nach dem Ursprung des Mehrwerts zu tief zu ergründen.

↑ That labor in capitalism produces surplus-value is no more astounding to Ricardo than

the fact that labor produces a product.

But what are we to think of John Stuart Mill, who, half a century after Ricardo, solemnly claims superiority over the mercantilists, by clumsily repeating the wretched evasions of Ricardo's earliest vulgarizers?

Was aber sagen, wenn ein halbes Jahrhundert nach Ricardo Herr John Stuart Mill würdevoll seine Überlegenheit über die Merkantilisten konstatiert, indem er die faulen Ausflüchte der ersten Verflacher Ricardos schlecht wiederholt?

↓ Here is an example of such a wretched evasion:

Mill says:

"The cause of profit is that labor produces more than is required for its support."

539:2–5 Mill sagt:

„Die Ursache des Profits ist die, daß die Arbeit mehr produziert, als für ihren Unterhalt erforderlich ist.“

↑ Marx showed already why and to what extent this is wrong.

Question 1041 *Discuss how surplus-labor depends on natural conditions. Does it lie in the nature of labor to produce more than is necessary for its support?*

↓ But Mill gives a new argument:

So far, nothing but the old story; but Mill wishing to add something of his own, proceeds:

"To vary the form of the theorem; the reason why capital yields a profit, is because food, clothing, materials and tools, last longer than the time which was required to produce them."

Soweit nicht als die alte Leier; aber Mill will auch Eignes hinzutun:

„Oder um die Form des Satzes zu variieren: der Grund, weshalb das Kapital einen Profit liefert, ist der, daß Nahrung, Kleider, Rohstoffe und Arbeitsmittel längere Zeit dauern, als zu ihrer Produktion erforderlich ist.“

He here confounds the duration of labor-time with the duration of its products. According to this view, a baker whose product lasts only a day, could never extract from his workpeople the same profit, as a machine maker whose products endure for 20 years and more. Of course it is very true, that if a bird's nest did not last longer than the time it takes in building, birds would have to do without nests.

539:6 Mill verwechselt hier die Dauer der Arbeitszeit mit der Dauer ihrer Produkte. Nach dieser Ansicht würde ein Bäcker, dessen Produkte nur einen Tag dauern, aus seinen Lohnarbeitern nie denselben Profit ziehen können wie ein Maschinenbauer, dessen Produkte zwanzig Jahre und länger dauern. Allerdings, wenn die Vogelnester nicht längere Zeit vorhielten, als zu ihrem Bau erforderlich, so würden die Vögel sich ohne Nester behelfen müssen.

This fundamental truth once established, Mill establishes his own superiority over the mercantilists.

"We thus see," he proceeds, "that profit arises, not from the incident of exchange, but from the productive power of labor; and the general profit of the country is always what the productive power of labor makes it, whether any exchange takes place or not. If there were no division of employments, there would be no buying or selling, but there would still be profit."

539:7–8 Diese Grundwahrheit einmal festgestellt, stellt Mill seine Überlegenheit über die Merkantilisten fest:

„Wir sehn also, daß der Profit entsteht, nicht aus dem Zwischenfall der Austausche, sondern aus der Produktivkraft der Arbeit; der Gesamtprofit eines Landes ist immer bestimmt durch die Produktivkraft der Arbeit, gleichviel ob Austausch stattfindet oder nicht. Bestände keine Teilung der Beschäftigungen, so gäbe es weder Kauf noch Verkauf, aber immer noch Profit.“

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For Mill then, exchange, buying and selling, those general conditions of capitalist production, are but an incident, and there would always be profits even without the purchase and sale of labor-power!

He continues:

“If the laborers of the country collectively produce twenty per cent more than their wages, profits will be twenty per cent, whatever prices may or may not be.”

This is, on the one hand, a rare bit of tautology; for if laborers produce a surplus-value of 20% for the capitalist, his profit will be to the total wages of the laborers as 20:100. On the other hand, it is absolutely false to say that “profits will be 20%.” They will always be less, because they are calculated upon the *sum total* of the capital advanced. If, for example, the capitalist have advanced £500, of which £400 is laid out in means of production and £100 in wages, and if the rate of surplus-value be 20%, the rate of profit will be 20:500, *i.e.*, 4% and not 20%.

Then follows a splendid example of Mill’s method of handling the different historical forms of social production:

“I assume, throughout, the state of things which prevails, with few exceptions, universally; namely, that the capitalist advances the whole expenses, including the entire remuneration of the laborer.”

Strange optical illusion to see everywhere a state of things which as yet exists only exceptionally on our earth.

Had Marx had the opportunity he would have certainly changed the preceding passage as follows (as suggested in a letter:) Good explanation in Vintage edition.

Then follows a splendid example of Mill’s method of handling the different historical forms of social production:

“I assume, throughout, the state of things which, where the laborers and capitalists are separate classes, prevails, with few exceptions, universally; namely, that the capitalist advances the whole expenses, including the

540:1 Hier sind also Austausch, Kauf und Verkauf, die allgemeinen Bedingungen der kapitalistischen Produktion, ein purer Zwischenfall, und es gibt immer noch Profit ohne Kauf und Verkauf der Arbeitskraft!

540:2–4 Weiter:

„Produziert die Gesamtheit der Arbeiter eines Landes 20% über ihre Lohnsumme, so werden die Profite 20% sein, was auch immer der Stand der Warenpreise.“

Dies ist einerseits eine äußerst gelungne Tautologie, denn wenn Arbeiter einen Mehrwert von 20% für ihre Kapitalisten produzieren, so werden sich die Profite zum Gesamtlohn der Arbeiter verhalten wie 20:100. Andererseits ist es absolut falsch, daß die Profite „20% sein werden“. Sie müssen immer kleiner sein, weil Profite berechnet werden auf die Totalsumme des vorgeschossenen Kapitals. Der Kapitalist habe z.B. 500 Pfd. St. vorgeschossen, davon 400 Pfd.St. in Produktionsmitteln, 100 Pfd.St. in Arbeitslohn. Die Rate des Mehrwerts sei, wie angenommen, 20%, so wird die Profitrate sein wie 20:500, d.h. 4% und nicht 20%.

540:5–8 Folgt eine glänzende Probe, wie Mill die verschiedenen geschichtlichen Formen der gesellschaftlichen Produktion behandelt:

„Ich setze überall den gegenwärtigen Stand der Dinge voraus, der bis auf wenige Ausnahmen überall herrscht, d.h. daß der Kapitalist alle Vorschüsse macht, die Bezahlung des Arbeiters einbegriffen.“

Seltsame optische Täuschung, überall einen Zustand zu sehn, der bis jetzt nur ausnahmsweise auf dem Erdball herrscht!

540:5–8 Folgt eine glänzende Probe, wie Mill die verschiedenen geschichtlichen Formen der gesellschaftlichen Produktion behandelt:

„Ich setze überall“, sagt er, „den gegenwärtigen Stand der Dinge voraus, der bis auf wenige Ausnahmen überall herrscht, wo Arbeiter und Kapitalisten einander als Klassen gegenüberstehen, d.h., daß der Kapitalist al-

entire remuneration of the laborer.”

Mr. Mill is willing to believe that it is not an absolute necessity for it to be so, even in an economic system where workers and capitalists confront each other as separate classes.

But let us finish—Mill is willing to concede, “that he should do so is not a matter of inherent necessity.” On the contrary:

“the laborer might wait, until the production is complete, for all that part of his wages which exceeds mere necessities: and even for the whole, if he has funds in hand sufficient for his temporary support. But in the latter case, the laborer is to that extent really a capitalist in the concern, by supplying a portion of the funds necessary for carrying it on.”

Mill might have gone further and have added, that the laborer who advances to himself not only the necessities of life but also the means of production, is in reality nothing but his own wage-laborer. He might also have said that the American peasant proprietor is but a serf who does enforced labor for himself instead of for his lord.

After thus proving clearly, that even if capitalist production had no existence, still it would always exist, Mill is consistent enough to show, on the contrary, that it has no existence, even when it does exist.

“And even in the former case” (when the workman is a wage laborer to whom the capitalist advances all the necessities of life, he the laborer), “may be looked upon in the same light,” (i.e., as a capitalist), “since, contributing his labor at less than the market-price, (!) he may be regarded as lending the difference (?) to his employer and receiving it back with interest, etc.”^{9a}

^{9a} J. St. Mill. *Principles of Pol. Econ.* Lond. 1868, p. 252–53 passim.

In reality, the laborer advances his labor gratuitously to the capitalist during, say one week, in order to receive the market price at the end of the week, etc., and it is this

le Vorschüsse macht, die Bezahlung des Arbeiters einbegriffen.“

Herr Mill wird gern glauben, es sei nicht eine absolute Notwendigkeit, daß dem so sei—selbst in dem ökonomischen System, in dem Arbeiter und Kapitalisten einander als Klassen gegenüberstehen.

Doch weiter. Mill ist gut genug, zuzugeben, „es sei nicht eine absolute Notwendigkeit, daß dem so sei“. Im Gegenteil.

„Der Arbeiter könnte, selbst mit seinem ganzen Lohnbetrage, die Zahlung abwarten, bis die Arbeit vollständig fertig ist, wenn er die zu seiner Erhaltung in der Zwischenzeit nötigen Mittel hätte. Aber in diesem Falle wäre er in gewissem Grade ein Kapitalist, der Kapital ins Geschäft legte, und einen Teil der zu seiner Fortführung nötigen Fonds lieferte.“

541:1 Ebensogut könnte Mill sagen, der Arbeiter, der sich selbst nicht nur die Lebensmittel, sondern auch die Arbeitsmittel vorschießt, sei in Wirklichkeit sein eigener Lohnarbeiter. Oder der amerikanische Bauer sei sein eigener Sklave, der nur für sich selbst statt für einen fremden Herrn frondet.

541:2–3 Nachdem uns Mill derart klärllich erwiesen, daß die kapitalistische Produktion, selbst wenn sie nicht existierte, dennoch immer existieren würde, ist er nun konsequent genug, zu beweisen, daß sie selbst dann nicht existiert, wenn sie existiert:

„Und selbst im vorigen Fall“ (wenn der Kapitalist dem Lohnarbeiter seine sämtlichen Subsistenzmittel vorschießt) „kann der Arbeiter unter demselben Gesichtspunkt betrachtet werden“ (d.h. als ein Kapitalist). „Denn indem er seine Arbeit unter dem Marktpreise (!) hergibt, kann er angesehen werden, als schösse er die Differenz (?) seinem Unternehmer vor usw.“^{9a}

^{9a} J. St. Mill, „*Principles of Political Economy*“, Lond. 1868, p. 252–253, passim.—{Obige Stellen sind nach der französischen Ausgabe des „Kapital“ übersetzt.—F.E.}

541:4 In der tatsächlichen Wirklichkeit schießt der Arbeiter dem Kapitalisten seine Arbeit während einer Woche usw. umsonst vor, um am Ende der Woche usw. ihren

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which, according to Mill, transforms him into a capitalist. On the level plain, simple mounds look like hills; and the imbecile flatness of the present bourgeoisie is to be measured by the altitude of its great intellects.

Marktpreis zu erhalten; das macht ihn, nach Mill, zum Kapitalisten! In der platten Ebene erscheinen auch Erdhaufen als Hügel; man messe die Platttheit unsrer heutigen Bourgeoisie am Kaliber ihrer „großen Geister“.

17. Changes of Magnitude in the Price of Labor-Power and Surplus-Value

This chapter discusses changes in the rate of surplus-value caused by variations in productivity of labor, intensity of labor, and length of the working day—under the assumption that the worker’s real wage income remains constant. It is a continuation of chapter Nine, which discussed changes in the rate of surplus-value caused by variations in the length of the working-day.

The first two paragraphs develop the assumptions just mentioned. Marx begins with a summary of the mechanisms determining the value of labor-power.

519:3 The value of labor-power is determined by the value of the habitually necessary means of consumption of the average laborer. The quantity of these means of consumption—although their form may vary—is given at any particular epoch in a particular society. It is therefore to be treated as a constant magnitude. What changes, is the value of this quantity.

542:1 Der Wert der Arbeitskraft ist bestimmt durch den Wert der gewohnheitsmäßig notwendigen Lebensmittel des Durchschnittsarbeiters. Die Masse dieser Lebensmittel, obgleich ihre Form wechseln mag, ist in einer bestimmten Epoche einer bestimmten Gesellschaft gegeben und daher als konstante Größe zu behandeln. Was wechselt, ist der Wert dieser Masse.

Moore and Aveling translate

“gegeben” with “known,” which is the epistemic fallacy.

↑ The reader should keep in mind that the value of labor-power determines the total *daily* or *weekly* wage income, not the hourly wage. In the discussion of wages in 543:3 and 558:1, Marx will say that a simple reformulation is needed to translate the results gained here into laws governing the wages themselves.

Question 1042 *At the beginning of chapter Seventeen, Marx says that he is not discussing changes in the standard of living of the working class, but that he is keeping them constant during this chapter. Why does he make this assumption? Does he follow through with this assumption, or will he discuss changes in the standard of living later in the chapter anyway?*

↓ Since the quantity of the workers’ consumption goods is assumed constant, all those factors cannot be discussed here which affect the magnitude of wages and profits through the kinds and amounts of use-values necessary to reproduce labor-power:

There are, besides, two other factors that enter into the determination of the value of labor-power. One, the expenses of developing that power, which expenses vary with the mode of production; the other, its natural

Zwei andre Faktoren gehn in die Wertbestimmung der Arbeitskraft ein. Einerseits ihre Entwicklungskosten, die sich mit der Produktionsweise ändern, andererseits ihre Naturdifferenz, ob sie männlich oder weib-

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diversity, the difference between the labor-power of men and women, of children and adults. The employment of these different sorts of labor-power, an employment which is again conditional on the mode of production, makes a great difference in the cost of maintaining the family of the laborer, and in the value of the labor-power of the adult male. Both these factors, however, are excluded in the following investigation.^{9b}

lich, reif oder unreif. Der Verbrauch dieser differenten Arbeitskräfte, wieder bedingt durch die Produktionsweise, macht großen Unterschied in den Reproduktionskosten der Arbeiterfamilie und dem Wert des erwachsenen männlichen Arbeiters. Beide Faktoren bleiben jedoch bei der folgenden Untersuchung ausgeschlossen.^{9b}

In footnote 9b, Engels names a third case which is also not discussed here:

^{9b} Note in the 3rd German edition.—The case considered at pages 300–302 is here of course also omitted.—F. E.

^{9b} Der S. 281 behandelte Fall ist hier natürlich ebenfalls ausgeschlossen. {Note zur 3. Aufl.—F. E.}

↑ Engels refers here to the situation where the individual value of the product is below its social value, which may lead to extra surplus-value, see 321:3/oo. ↓ Engels's assumption in the footnote is related to the assumption Marx makes in in the main text right after that footnote:

519:4 I assume (1) that commodities are sold at their value; (2) that the price of labor-power rises occasionally above its value, but never sinks below it.

542:2 Wir unterstellen, 1. daß die Waren zu ihrem Wert verkauft werden, 2. daß der Preis der Arbeitskraft wohl gelegentlich über ihren Wert steigt, aber nie unter ihn sinkt.

↑ In both Marx's and Engels's assumptions, market prices reflect social values. The assumption that labor-power is sold at its value is also made in 318:1/o.

↓ If all assumptions hold that have been listed so far, then wages and surplus-value are determined by three factors: productivity, intensity, and length of the working-day.

520:1 On this assumption we have seen that the relative magnitudes of surplus-value and of price of labor-power are determined by three circumstances; (1) the length of the working-day, or the extensive magnitude of labor; (2) the normal intensity of labor, its intensive magnitude, whereby a given quantity of labor is expended in a given time; (3) the productive power of labor, whereby the same quantum of labor yields, in a given time, a greater or lesser quantum of product, dependent on the degree of development in the conditions of production.

542:3/o Dies einmal unterstellt, fand sich, daß die relativen Größen von Preis der Arbeitskraft und von Mehrwert durch drei Umstände bedingt sind: 1. die Länge des Arbeitstags oder die extensive Größe der Arbeit; 2. die normale Intensität der Arbeit oder ihre intensive Größe, so daß ein bestimmtes Arbeitsquantum in bestimmter Zeit verausgabt wird; 3. endlich die Produktivkraft der Arbeit, so daß je nach dem Entwicklungsgrad der Produktionsbedingungen dasselbe Quantum Arbeit in derselben Zeit ein größeres oder kleineres Quantum Produkt liefert.

I. Length and Intensity Constant, Productivity Variable

Mathematically, these relations can be expressed by the four parameters

$$\begin{aligned}
 l &= \text{length of working day} && \left(\frac{\text{working hours}}{\text{working days}} \right) \\
 i &= \text{intensity of labor} && \left(\frac{\text{value units}}{\text{working hours}} \right) \\
 m &= \text{“habitually necessary” means of subsistence} && \left(\frac{\text{use-value units}}{\text{working days}} \right) \\
 q &= \text{productive power of labor} && \left(\frac{\text{use-value units}}{\text{value units}} \right)
 \end{aligned}$$

and the three derived variables

$$\begin{aligned}
 u &= \text{value produced per day} = l \times i && \left(\frac{\text{value units}}{\text{working days}} \right) \\
 v &= \text{value of labor-power per day} = \frac{m}{q} && \left(\frac{\text{value units}}{\text{working days}} \right) \\
 s &= \text{surplus-value per day} = l \times i - \frac{m}{q} && \left(\frac{\text{value units}}{\text{working days}} \right)
 \end{aligned}$$

Very different combinations are clearly possible, according as one of the three factors is constant and two variable, or two constant and one variable, or lastly, all three simultaneously variable. And the number of these combinations is augmented by the fact that, when these factors simultaneously vary, the amount and direction of their respective variations may differ. In what follows the chief combinations alone are considered.

Sehr verschiedene Kombinationen sind offenbar möglich, je nachdem einer der drei Faktoren konstant und zwei variabel, oder zwei Faktoren konstant und einer variabel, oder endlich alle gleichzeitig variabel sind. Diese Kombinationen werden noch dadurch vermannigfacht, daß bei gleichzeitiger Variation verschiedener Faktoren die Größe und Richtung der Variation verschieden sein können. Im folgenden sind nur die Hauptkombinationen dargestellt.

A modern economist would represent the variations Marx is going to discuss now as the partial derivatives of s with respect to q , i , and l . In modern economics this is called a “comparative statics” analysis.

I. Length of Working Day and Intensity of Labor Constant, Productivity Variable

As announced in the section title, Marx first discusses the situation where l and i are constant and only the productivity q varies. And as announced at the very beginning of the chapter, in 519:3, m is kept constant as well. Let us first see how a modern mathematical economist would analyze this situation. Surplus-value depends on the four basic parameters l , i , m , and q through the following equation:

$$s = l \times i - \frac{m}{q}. \quad (17.1)$$

Taking time derivatives with l , i , and m treated as constants gives

$$\dot{s} = \frac{m}{q^2} \dot{q} = v \times \frac{\dot{q}}{q} \quad (17.2)$$

17. Changes in Price of Labor-Power and Surplus-Value

from which follows

$$\frac{\dot{s}}{s} = \frac{\dot{q}}{q} / \frac{s}{v} \quad (17.3)$$

i.e., the relative increase in surplus-value (perhaps expressed in percentage points) is equal to the relative increase in productivity divided by the rate of exploitation.

Where a modern economist would see one law, symbolized by (17.1) or (17.3), Marx speaks of three different laws:

520:2 On these assumptions the value of labor-power, and the magnitude of surplus-value, are determined by three laws.

543:1 Unter dieser Voraussetzung sind Wert der Arbeitskraft und Mehrwert durch drei Gesetze bestimmt.

Marx will derive these three laws by a dialectical derivation with two σ -transforms. I will attempt to show that it is justified to speak of three laws because three different generative mechanisms are at work. In other words, formula (17.1) or (17.3) is the symbolic representation of an empirical regularity, which is maintained by the confluence of several different underlying mechanisms.

I.a. [First Law: Total Value Created is Constant]

520:3 Firstly, a working day of given length always represents itself in the same amount of value, no matter how much the productivity of labor may change and, with it, the mass of the product, therefore the price of each individual commodity.

543:2 Erstens: Der Arbeitstag von gegebener Größe stellt sich stets in demselben Wertprodukt dar, wie auch die Produktivität der Arbeit, mit ihr die Produktenmasse und daher der Preis der einzelnen Ware wechselt.

↑ The quantity of value does not depend on productivity but is determined by labor-time alone. (From this we can deduce another assumption made by Marx: Marx assumes that all laborers are average laborers, so that it is a group of workers large enough that their individual differences cancel out, see chapter Thirteen, 322:2/oo.) The law that value only depends on labor time was introduced in chapter One, see 49:2/o. The great exception to this law, the introduction of new machinery which leads to extra surplus-value, was explicitly ruled out in footnote 9b to paragraph 519:3 earlier in this chapter here.

Although this is an important and by no means obvious economic law, it has a very simple mathematical form: it says that the formula for u , the value produced per day, $u = l \times i$, does not have q in it.

value product of one day = $l \times i$ constant

use-value product of one day = $l \times i \times q$ changes with productivity.

↓ If one divides these two equations, one gets the value of the individual article, which changes inversely with productivity.

If the value created by a working-day of 12 hours be, say, six shillings, then, although the mass of the articles produced varies with the productive power of labor, the only result is that the value represented by six shillings is spread over a greater or lower number of articles.

543:3 Das Wertprodukt eines zwölfstündigen Arbeitstags ist 6 sh. z.B., obgleich die Masse der produzierten Gebrauchswerte mit der Produktivkraft der Arbeit wechselt, der Wert von 6 sh. sich also über mehr oder weniger Waren verteilt.

↑ Instead of the value of the individual article Marx discusses here its inverse, the “spread” of a given value over a greater or lower number of articles.

I.b. [Second Law: Increases in Productivity lead to Increases in Surplus-value]

Even though an increase in productivity does not lead to an increase in value, the second law states that it leads to an increase in *surplus-value* and a decrease in the value of labor-power.

520:5 Secondly, surplus-value and the value of labor-power vary in opposite directions. A variation in the productive power of labor, its increase or diminution, causes a variation in the opposite direction in the value of labor-power, and in the same direction in surplus-value.

543:4 Zweitens: Wert der Arbeitskraft und Mehrwert wechseln in umgekehrter Richtung zueinander. Wechsel in der Produktivkraft der Arbeit, ihre Zunahme oder Abnahme, wirkt in umgekehrter Richtung auf den Wert der Arbeitskraft und in direkter auf den Mehrwert.

↑ The second sentence of this two-sentence paragraph states the second law. Marx does not specify whether it is a law about the value of labor-power or about surplus-value. The same mechanism affects both: a rise (fall) in the productivity of labor leads both to a fall (rise) in the value of labor-power and a rise (fall) in surplus-value. The first sentence of the paragraph is an explanation, given beforehand, why this one cause, a change in the productivity of labor, has such a double outcome: because value of labor-power and surplus-value always move in opposite directions to each other.

A modern mathematical economist would see a proof of this law in its very formulation. First sentence: since the surplus-value is total value produced minus value of the labor-power consumed (see chapter Seven, 205:3/o), surplus-value and value of labor-power vary inversely with each other. First half of second sentence: on the other hand, as discussed in chapter Twelve, value of labor-power varies inversely with productivity. Second half of second sentence: If one puts these two inverse relations together, one gets a direct relationship between surplus-value and productivity.

But Marx would not consider such a concatenation of equations to be a proof, since this purely mathematical operation is silent about the causalities involved. Marx's proof of the second law takes up the next two paragraphs. ↓ It can be viewed as a dialectical derivation which takes off from the first law.

520:6/o The value created by a working day of 12 hours is a constant quantity, say, six shillings.

543:5 Das Wertprodukt des zwölfstündigen Arbeitstags ist eine konstante Größe, z.B. 6 sh.

The dialectic comes in with the observation that this *constant* is the sum of two *variables*. This is a σ -transform, the discovery of a not entirely obvious contradiction: how can a constant be the sum of two variables?

This constant quantity is the sum of the surplus-value plus the value of the labor-power, which latter value the laborer replaces by an equivalent.

Diese konstante Größe ist gleich der Summe des Mehrwerts plus dem Wert der Arbeitskraft, den der Arbeiter durch ein Äquivalent ersetzt.

↓ There is only one way to resolve this contradiction. Two variables can only then have a constant as their sum if their variations are opposite to each other.

It is self-evident that, if a constant quantity consists of two parts, neither of them can increase without the other diminishing.

Es ist selbstverständlich, daß von zwei Teilen einer konstanten Größe keiner zunehmen kann, ohne daß der andre abnimmt.

↓ For value of labor-power and surplus-value, the following must therefore be true (if they are the component parts of a constant magnitude):

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Let the two parts at starting be equal; 3 shillings value of labor-power, 3 shillings surplus-value. Then the value of the labor-power cannot rise from three shillings to four, without the surplus-value falling from three shillings to two; and the surplus-value cannot rise from three shillings to four, without the value of labor-power falling from three shillings to two.

Der Wert der Arbeitskraft kann nicht von 3 sh. auf 4 steigen, ohne daß der Mehrwert von 3 sh. auf 2 fällt, und der Mehrwert kann nicht von 3 auf 4 sh. steigen, ohne daß der Wert der Arbeitskraft von 3 sh. auf 2 fällt.

↑ This statement is entirely symmetric in value of labor-power and surplus-value. It does not say anything about causality, only association. This association must hold if the sum of value of labor-power and surplus-value is a constant. The next step must therefore be to check whether causal mechanisms exist which generate this association.

↓ But before checking whether such causal mechanisms exist, Marx makes a brief digression in order to draw out an implication of this negative association between value of labor-power and surplus-value: it is not possible that both rise at the same time. The rise of one always goes at the expense of the other.

Under these circumstances, therefore, no change can take place in the absolute magnitude, either of the surplus-value, or of the value of labor-power, without a simultaneous change in their relative magnitudes, *i.e.*, relatively to each other. It is impossible for them to rise or fall simultaneously.

Unter diesen Umständen also ist kein Wechsel in der absoluten Größe, sei es des Werts der Arbeitskraft, sei es des Mehrwerts, möglich ohne gleichzeitigen Wechsel ihrer relativen oder verhältnismäßigen Größen. Es ist unmöglich, daß sie gleichzeitig fallen oder steigen.

↑ The relative magnitudes can be obtained by the trivial mathematical operation of dividing the absolute magnitudes by each other. Why does Marx even bother with this mathematically trivial reformulation? Because in the real world, relative changes are sustained by different mechanisms and also have different effects than absolute changes. Changes in the absolute magnitude of the value of labor-power are caused by changes in productivity, while changes in the relative magnitudes are the results of distributional battles between the classes.

↓ After this digression about relative magnitudes, Marx looks for the causal mechanisms which maintain this negative association between value of labor-power and surplus-value. For this, Marx adds yet another variable to the association, namely, productivity:

521:1 Further, the value of labor-power cannot fall, and consequently surplus-value cannot rise, without a rise in the productive power of labor.

543:6/o Der Wert der Arbeitskraft kann ferner nicht fallen, also der Mehrwert nicht steigen, ohne daß die Produktivkraft der Arbeit steigt,

↓ But with productivity of labor we have found the variable whose change causes the other changes. The remainder of this sentence no longer talks about association but about causality:

For instance, in the above case, the value of the labor-power cannot sink from three shillings to two, unless an increase in the productive power of labor makes it possible to produce in 4 hours the same quantity of means of consumption as previously

z.B. im obigen Fall kann der Wert der Arbeitskraft nicht von 3 auf 2 sh. sinken, ohne daß erhöhte Produktivkraft der Arbeit erlaubt, in 4 Stunden dieselbe Masse Lebensmittel zu produzieren, die vorher 6 Stunden zu ihrer Produktion erheischten. Umgekehrt

required 6 hours to produce. On the other hand, the value of the labor-power cannot rise from three shillings to four, without a decrease in the productive power of labor, whereby eight hours become requisite to produce the same quantity of means of consumption, for the production of which six hours previously sufficed.

kann der Wert der Arbeitskraft nicht von 3 auf 4 sh. steigen, ohne daß die Produktivkraft der Arbeit fällt, also 8 Stunden zur Produktion derselben Masse von Lebensmitteln erheischt sind, wozu früher 6 Stunden genügten.

⇓ In other words, that what first was only known to be an association is now seen to be a causal effect going from productivity to value of labor-power to surplus-value.

It follows from this, that an increase in the productive power of labor causes a fall in the value of labor-power and a consequent rise in surplus-value, while, on the other hand, a decrease in such productive power causes a rise in the value of labor-power, and a fall in surplus-value.

Es folgt hieraus, daß die Zunahme in der Produktivität der Arbeit den Wert der Arbeitskraft senkt und damit den Mehrwert steigert, während umgekehrt die Abnahme der Produktivität den Wert der Arbeitskraft steigert und den Mehrwert senkt.

↑ This formulation, echoing the statement of the law at the beginning of 520:5, concludes the proof of this law. This proof did not consist in the extraneous and unmediated concatenation of mathematical relationships, but in a dialectical derivation. Note that the result of this dialectic is an entirely linear causality—but this causality starts in the hidden sphere of production. The above σ -transform allowed us to go from the starting point on the surface (the constancy of the total value created) to the underlying sphere of production.

⇓ Marx does not stay long with this linear causality but immediately finds another σ -transform. Since the relationship between productivity and surplus-value is a direct relationship, i.e., since an increase in productivity leads to an increase in surplus-value, one might think that productivity is the source of surplus-value. Against this, Marx brings the observation that it is not a proportional relationship, i.e., not a relationship of the form $s = a \times q$ with a constant a . An increase in productivity by 3 percent, say, does therefore not lead to an increase of surplus-value by 3 percent. Marx introduces this observation as something that Ricardo overlooked:

521:2/o In formulating this law, Ricardo overlooked one circumstance; although a change in the magnitude of the surplus-value or surplus-labor has as its condition a change in the opposite direction in the magnitude of the value of labor-power, or in the quantity of necessary labor, it by no means follows that they vary in the same proportion. They do increase or diminish by the same quantity. But their proportional increase or diminution depends on their original magnitudes before the change in the productive power of labor took place.

544:1 Bei Formulierung dieses Gesetzes übersah Ricardo einen Umstand: Obgleich der Wechsel in der Größe des Mehrwerts oder der Mehrarbeit einen umgekehrten Wechsel in der Größe des Werts der Arbeitskraft oder der notwendigen Arbeit bedingt, folgt keineswegs, daß sie in derselben Proportion wechseln. Sie nehmen zu oder ab um dieselbe Größe. Das Verhältnis aber, worin jeder Teil des Wertprodukts oder des Arbeitstags zu- oder abnimmt, hängt von der ursprünglichen Teilung ab, die vor dem Wechsel in der Produktivkraft der Arbeit stattfand.

↑ This is a verbal description of the mathematical equation (17.3): $\frac{ds}{s}$ is not equal to $\frac{dq}{q}$, but instead the following relationship holds: $\frac{ds}{s} = \frac{dq}{q} / \frac{s}{v}$. In words, the percentage by which

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surplus-value increases is the percentage by which productivity increases divided by the rate of exploitation. Instead of writing out this relationship as a mathematical formula, as is the custom in modern economics, Marx gives a numerical example. To make it easier for the modern reader to follow the math, the translation converted the british pounds used by Marx into dollars. As in 318:1/o, one hour of work is represented in 12 cents.

If the value of the labor-power be 96 cents, or the necessary labor-time 8 hours, and the surplus-value be 48 cents, or the surplus-labor 4 hours, and if, in consequence of an increase in the productive power of labor, the value of the labor-power falls to 72 cents, or the necessary labor to 6 hours, the surplus-value will rise to 72 cents, or the surplus-labor to 6 hours. The same quantity, 24 cents or 2 hours, is added in one case and subtracted in the other. But the proportional change of magnitude is different in each case. While the value of the labor-power falls from 96 cents to 72, *i.e.*, by 1/4 or 25%, the surplus-value rises from 48 cents to 72, *i.e.*, by 1/2 or 50%. It therefore follows that the proportional increase or diminution in surplus-value, consequent on a given change in the productive power of labor, depends on the original magnitude of that portion of the working day which embodies itself in surplus-value; the smaller that portion, the greater is the proportional change; the greater that portion, the less is the proportional change.

War der Wert der Arbeitskraft 4 sh. oder die notwendige Arbeitszeit 8 Stunden, der Mehrwert 2 sh. oder die Mehrarbeit 4 Stunden und fällt, infolge erhöhter Produktivkraft der Arbeit, der Wert der Arbeitskraft auf 3 sh. oder die notwendige Arbeit auf 6 Stunden, so steigt der Mehrwert auf 3 sh. oder die Mehrarbeit auf 6 Stunden. Es ist dieselbe Größe von 2 Stunden oder 1 sh., die dort zugefügt, hier weggenommen wird. Aber der proportionelle Größenwechsel ist auf beiden Seiten verschieden. Während der Wert der Arbeitskraft von 4 sh. auf 3, also um 1/4 oder 25% sinkt, steigt der Mehrwert von 2 sh. auf 3, also um 1/2 oder 50%. Es folgt daher, daß die proportionelle Zu- oder Abnahme des Mehrwerts, infolge eines gegebenen Wechsels in der Produktivkraft der Arbeit, um so größer, je kleiner, und um so kleiner, je größer ursprünglich der Teil des Arbeitstags war, der sich in Mehrwert darstellt.

In this situation, the parameter values of l , i , and m , which remain fixed, are (with the arbitrary introduction of widgets as use-value units of the workers' consumption goods):

$$\begin{aligned} l &= \text{length of working day} &= \frac{12 \text{ hours}}{\text{day}} \\ i &= \text{intensity of labor} &= \frac{12 \text{ cents}}{\text{hour}} \\ m &= \text{workers' consumption} &= \frac{8 \text{ widgets}}{\text{day}} \end{aligned}$$

Therefore

$$u = \text{value produced per day} = l \times i = \frac{\$1.44}{\text{day}}$$

I. Length and Intensity Constant, Productivity Variable

Before the increase in productivity, the other parameters are:

$$\begin{aligned}
 q_0 &= \text{productive power of labor} && = \frac{1 \text{ widget}}{12 \text{ cents}} \\
 v_0 &= \text{value of daily labor-power} = \frac{m}{q_0} && = \frac{96 \text{ cents}}{\text{day}} \\
 s_0 &= \text{surplus-value per day} = l \times i - \frac{m}{q_0} && = \frac{48 \text{ cents}}{\text{day}}
 \end{aligned}$$

After the productivity increase, the parameters are

$$\begin{aligned}
 q_1 &= \text{productive power of labor} && = \frac{1 \text{ widget}}{8 \text{ cents}} \\
 v_1 &= \text{value of daily labor-power} = \frac{m}{q_1} && = \frac{72 \text{ cents}}{\text{day}} \\
 s_1 &= \text{surplus-value per day} = l \times i - \frac{m}{q_1} && = \frac{72 \text{ cents}}{\text{day}}
 \end{aligned}$$

The ratios computed by Marx in the text are

$$\frac{\Delta v}{v} = \frac{v_1 - v_0}{v_0} = -\frac{1}{4} \quad (17.4)$$

$$\frac{\Delta s}{s} = \frac{s_1 - s_0}{s_0} = \frac{1}{2} \quad (17.5)$$

Clearly, the proportional decrease of v is not equal to the proportional increase of s . Instead, since $\Delta s = -\Delta v$, the following equation

$$\frac{\Delta s}{s} = -\frac{\Delta v}{v} / \frac{s}{v} \quad (17.6)$$

always holds.

Equation (17.6) looks similar to (17.3), but it relates the proportional increase of s only to the proportional decrease in v , not to the more basic proportional increase in productivity q . Had Marx computed the change in productivity itself instead of the change in variable capital, he would have obtained

$$\frac{\Delta q}{q} = \frac{q_1 - q_0}{q_0} = \frac{1}{2} \quad (17.7)$$

which happens in this particular example to be equal to $\frac{\Delta s}{s}$ — but this is a fluke; in general, $\frac{\Delta q}{q}$ and $\frac{\Delta s}{s}$ are unequal.

Question 1043 *Make this same calculation with the exchange rate £1=\$5. Assume one hour of labor produces a value of 12.5 cents. Also assume that 1 day has 12 hours, and that the means of subsistence necessary for one day have a value of \$1. Compute surplus-value and the rate of exploitation. Then assume that by an increase of productivity the value of the necessary means of subsistence falls by 25%, i.e., now it is 75 cents. Compute surplus-value and the rate of exploitation in this situation.*

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In Marx's example, the rate of exploitation is rather low, it is only 50%. Therefore a small increase in productivity is rewarded by a large increase in surplus-value. This was, presumably, the situation during the industrial revolution. Today the opposite case is more relevant (which Marx discusses somewhere in Grundrisse): if the rate of exploitation is already high, then increases in productivity will not make that much difference. Here it would be much more profitable to increase intensity.

Question 1044 Assume that the necessary labor is 2 hours and the rate of surplus-value 300%. How long is the surplus-labor? If the product of one hour's labor is \$20—how much surplus-value is produced per day, and what is the daily wage?

Question 1045 Assume that in the above branch of production the intensity of labor is increased by 15%. How many dollars worth of value would then be produced in one hour? How much surplus-value would be produced in one day, if the daily wages would remain the same?

Question 1046 Assume that instead of increasing intensity of labor by 15%, the productivity of labor in all branches of production would increase by a whopping 100%, while the standard of living of the workers would remain the same. How much surplus-value would then be produced in one day?

Question 1047 Comparing the answers of the preceding two questions, why do the capitalist even bother to increase productivity? Note that in 3 we calculated only the long term trend. What would be the effect of an increase in productivity in the short run? How does international trade give an extra incentive to increased technology?

I.c. [Third Law: Causality from Productivity to Surplus-Value]

In the formulation of the second law, the value of labor-power and surplus-value were treated in a strictly parallel fashion. The same mechanism, an increase in productivity, affects both variable capital and surplus-value. This parallel formulation was even maintained at the beginning of the proof. But the very last step of the proof, which identified the causality involved, suddenly no longer makes any mention of surplus-value but only talks about the link from productivity to the value of labor-power. Surplus-value is only affected indirectly, by a change in the value of labor-power. The third law emphasizes this one-sided causal directionality behind the negative correlation between value of labor-power and surplus-value. An increase in surplus-value can never be the cause, but always only the consequence, of a decrease in the value of labor-power (i.e., in the value of the workers' habitual means of subsistence, whose mass is here considered constant). This was already discussed in chapter Twelve, 318:1/o.

522:1 (3.) Increase or diminution in surplus-value is always the effect of, and never the cause of, the corresponding diminution or increase in the value of labor-power.¹⁰

544:2 Drittens: Zu- oder Abnahme des Mehrwerts ist stets Folge und nie Grund der entsprechenden Ab- und Zunahme des Werts der Arbeitskraft.¹⁰

↑ Even if the capitalists have the market power to increase their profit margins, profits are not created in circulation but in production. If the length of the working-day is fixed, then a durable increase in profits can only come from a decrease of the value of labor-power, i.e. an increase in productivity. But the motivation of the capitalist focuses on profits, not the

value of labor-power. The third law says: the capitalists' efforts to increase profits will only then lead to a durable increase in profits if they have the effect of lowering the value of the worker's habitual means of subsistence. ↓ Methods to increase surplus-value which do not go through the value of the workers' means of subsistence must therefore be illusory:

¹⁰ To this third law MacCulloch has made, amongst others, this absurd addition, that a rise in surplus-value, unaccompanied by a fall in the value of labor-power, can occur through the abolition of taxes payable by the capitalist. The abolition of such taxes makes no change whatever in the quantity of surplus-value that the capitalist extorts at first-hand from the laborer. It alters only the proportion in which that surplus-value is divided between himself and third persons. It consequently makes no alteration whatever in the relation between surplus-value and value of labor-power. MacCulloch's exception therefore proves only his misapprehension of the rule, a misfortune that as often happens to him in the vulgarisation of Ricardo, as it does to J. B. Say in the vulgarisation of Adam Smith.

¹⁰ Zu diesem dritten Gesetz hat MacCulloch u.a. den abgeschmackten Zusatz gemacht, daß der Mehrwert ohne Fall im Wert der Arbeitskraft steigen kann durch Abschaffung von Steuern, die der Kapitalist früher zu zahlen hatte. Die Abschaffung solcher Steuern ändert absolut nichts an dem Quantum Mehrwert, das der industrielle Kapitalist in erster Hand dem Arbeiter auspumpt. Sie ändert nur die Proportion, worin er Mehrwert in seine eigne Tasche steckt oder mit dritten Personen teilen muß. Sie ändert also nichts an dem Verhältnis zwischen Wert der Arbeitskraft und Mehrwert. Die Ausnahme des MacCulloch beweist also nur sein Mißverständnis der Regel, ein Malheur, das ihm in der Vulgarisation Ricardos ebensooft passiert als dem J. B. Say in der Vulgarisation A. Smiths.

Until now, the third law was only formulated but not yet proved. ↓ Here is its proof:

522:2 Since the working-day is constant in magnitude, and is represented by a value of constant magnitude, since, to every variation in the magnitude of surplus-value, there corresponds an inverse variation in the value of labor-power, and since the value of labor-power cannot change, except in consequence of a change in the productive power of labor, it clearly follows, under these conditions, that every change in the magnitude of surplus-value arises from an inverse change in the magnitude of the value of labor-power.

545:1 Da der Arbeitstag von konstanter Größe ist, sich in einer konstanten Wertgröße darstellt, jedem Größenwechsel des Mehrwerts ein umgekehrter Größenwechsel im Wert der Arbeitskraft entspricht und der Wert der Arbeitskraft nur wechseln kann mit einem Wechsel in der Produktivkraft der Arbeit, folgt unter diesen Bedingungen offenbar, daß jeder Größenwechsel des Mehrwerts aus einem umgekehrten Größenwechsel im Wert der Arbeitskraft entspringt.

↑ One sees that this third law is not due to the separate action of an independent causal mechanism but a consequence of the constraints imposed in the given situation. ↓ Although the theoretical derivation of this law is simple, the law itself is by no means trivial and obvious if one applies it to the real world. Whatever means the capitalist may apply to increase profits, be it cost savings or innovation in production or figuring out what the customers want to buy, etc., the third law says that it can only then *permanently* increase surplus-labor if it has the effect of lowering the reproduction costs of the laborer. The next passage expresses this idea in terms of absolute and relative changes in value of labor-power and surplus-value:

If, then, as we have already seen, there can be no change of absolute magnitude in the value of labor-power, and in surplus-value, unaccompanied by a change in their relative magnitudes, so now it follows that no change in their relative magnitudes is possi-

Wenn man daher gesehen, daß kein absoluter Größenwechsel im Wert der Arbeitskraft und des Mehrwerts möglich ist ohne einen Wechsel ihrer relativen Größen, so folgt jetzt, daß kein Wechsel ihrer relativen Wertgrößen möglich ist ohne einen Wechsel

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ble, without a change in the absolute magnitude of the value of labor-power.

in der absoluten Wertgröße der Arbeitskraft.

↑ Although this looks like a symmetric counterpart of the law derived in 520:6/o, it is really its negation. Whereas the earlier law ruled out a situation in which both wage and surplus-value rise at the same time, this law here rules out a situation in which a few minutes or hours of the working-day are directly reallocated from necessary labor to surplus-labor. It is not possible to directly move the divider between necessary labor and surplus-labor as suggested in 317:2/o. This is only true under the assumption that prices are equal to values; but given this assumption, the capitalists cannot directly transfer surplus-value from the workers to themselves. An increase in surplus-value can only happen indirectly, as the consequence of a fall in the value of labor-power. ↓ The next paragraph shows that this indirectness can be beneficial to the working class:

I.d. [A rise in the workers' consumption]

522:3/o According to the third law, a change in the magnitude of surplus-value presupposes a movement in the value of labor-power, brought about by a variation in the productive power of labor.

545:2 Nach dem dritten Gesetz unterstellt der Größenwechsel des Mehrwerts eine durch Wechsel in der Produktivkraft der Arbeit verursachte Wertbewegung der Arbeitskraft.

↓ Assume, for instance, that capitalists introduce technical innovations in order to increase their profits, and the value of labor-power indeed falls. But the price paid for labor-power does not fall immediately or does not fall as far as it should. (The consideration of the process of adjustment can be considered a σ -transform.) Then the efforts of the capitalists to increase profits lead to higher wages for the workers.

The limit of this change is given by the altered value of labor-power. Nevertheless, even when circumstances allow the law to operate, subsidiary movements may occur. For example: if in consequence of the increased productive power of labor, the value of labor-power falls from 96 cents to 72, or the necessary labor-time from 8 hours to 6, the price of labor-power may possibly not fall below 88 cents, 84 cents, or 76 cents, and the surplus-value consequently not rise above 56 cents, 60 cents, or 68 cents. The amount of this fall, the lowest limit of which is 72 cents (the new value of labor-power), depends on the relative weight, which the pressure of capital on the one side, and the resistance of the laborer on the other, throw into the scale.

Die Grenze jenes Wechsels ist durch die neue Wertgrenze der Arbeitskraft gegeben. Es können aber, auch wenn die Umstände dem Gesetz zu wirken erlauben, Zwischenbewegungen stattfinden. Fällt z.B. infolge erhöhter Produktivkraft der Arbeit der Wert der Arbeitskraft von 4 sh. auf 3 oder die notwendige Arbeitszeit von 8 Stunden auf 6, so könnte der Preis der Arbeitskraft nur auf 3 sh. 8 d., 3 sh. 6 d., 3 sh. 2 d. usw. fallen, der Mehrwert daher nur auf 3 sh. 4 d., 3sh. 6 d., 3 sh. 10 d. usw. steigen. Der Grad des Falls, dessen Minimalgrenze 3 sh., hängt von dem relativen Gewicht ab, das der Druck des Kapitals von der einen Seite, der Widerstand der Arbeiter von der andern Seite in die Waagschale wirft.

In his calculation of surplus-value, Marx seems to be off by 1 shilling. Instead of surplus-values of 3 sh. 4 d., 3sh. 6 d., and 3 sh. 10 d., the right number seem to be 2 sh. 4 d., 2sh. 6 d., and 2 sh. 10 d. On the German side, I left Marx's original numbers, but I adjusted the dollar amounts given in the English.

One might think that this advantage for the working-class is only temporary, because the

price of labor-power has risen above its value. But in this situation, the pressure of the capitalist class to drive the price of labor-power down to its value is mitigated because capitalist profits rise as well. The capitalists may not object to the rise in wages because the purchasing power of their profits increases as well, and their accumulation and consumption plans can proceed without obstacles. The higher wages may even be perceived as an advantage, since they ensure labor peace and willing performance by the workers. This effect is also known in modern macroeconomics as the “ratchet effect” of consumption: once personal consumption has been allowed to increase, it is very difficult to get it back down to the previous lower level.

↓ The limiting case in the direction favorable to the workers is described in Marx’s next example, which makes a break with the assumption from 519:3 that real wages are constant:

523:1 The value of labor-power is determined by the value of a given quantity of necessary means of consumption. It is the value and not the mass of these means of consumption that varies with the productive power of labor. It is, however, possible that, owing to an increase of productive power, both the laborer and the capitalist may simultaneously be able to appropriate a greater quantity of means of consumption, without any change in the price of labor-power or in surplus-value. If the value of labor-power be 72 cents, and the necessary labor-time amount to 6 hours, if the surplus-value likewise be 72 cents, and the surplus-labor 6 hours, then if the productive power of labor were doubled without altering the ratio of necessary labor to surplus-labor, there would be no change of magnitude in surplus-value and price of labor-power. The only result would be that each of them would represent twice as many use-values as before; these use-values being twice as cheap as before. Although labor-power would be unchanged in price, it would be above its value.

545:3/o Der Wert der Arbeitskraft ist bestimmt durch den Wert eines bestimmten Quantum von Lebensmitteln. Was mit der Produktivkraft der Arbeit wechselt, ist der Wert dieser Lebensmittel, nicht ihre Masse. Die Masse selbst kann, bei steigender Produktivkraft der Arbeit, für Arbeiter und Kapitalist gleichzeitig und in demselben Verhältnis wachsen ohne irgendeinen Größenwechsel zwischen Preis der Arbeitskraft und Mehrwert. Ist der ursprüngliche Wert der Arbeitskraft 3 sh. und beträgt die notwendige Arbeitszeit 6 Stunden, ist der Mehrwert ebenfalls 3 sh. oder beträgt die Mehrarbeit auch 6 Stunden, so würde eine Verdopplung in der Produktivkraft der Arbeit, bei gleichbleibender Teilung des Arbeitstags, Preis der Arbeitskraft und Mehrwert unverändert lassen. Nur stellte sich jeder derselben in doppelt so vielen, aber verhältnismäßig verwohlfeilerten Gebrauchswerten dar. Obgleich der Preis der Arbeitskraft unverändert, wäre er über ihren Wert gestiegen.

↑ The movements which are in full compliance with the constraint that real wages are constant generate therefore forces that push for a change in real wages. Through its own dialectics, therefore, this process subverts the presuppositions on which it is based.

↓ At the very end, Marx shows that this leakage, which allows workers to capture parts of the productivity increase and add it to their socially accepted consumption norm, is strictly limited: it can improve the absolute position of the laborer, but it will not narrow the gulf between laborer and capitalist, indeed this gulf will probably widen:

If, however, the price of labor-power had fallen, not to 36 cents, the lowest possible point consistent with its new value, but to 68 cents or 60 cents, still this falling price

Fiele der Preis der Arbeitskraft, aber nicht bis zu der durch ihren neuen Wert gegebenen Minimalgrenze von 1 1/2 sh., sondern auf 2 sh. 10 d., 2 sh. 6 d. usw., so repräsentieren

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would represent an increased mass of means of consumption. In this way it is possible with an increasing productive power of labor, for the price of labor-power to keep on falling, and yet this fall to be accompanied by a constant growth in the mass of the laborer's means of consumption. But relatively, compared with surplus-value, the value of labor-power would fall continuously, and thus the abyss between the laborer's position and that of the capitalist would keep widening.¹¹

¹¹ "When an alteration takes place in the productiveness of industry, and that either more or less is produced by a given quantity of labor and capital, the proportion of wages may obviously vary, whilst the quantity, which that proportion represents, remains the same, or the quantity may vary, whilst the proportion remains the same." ([J. Cazenove,] *Outlines of Political Economy, etc.*, p. 67.)

tierte dieser fallende Preis immer noch eine wachsende Masse von Lebensmitteln. Der Preis der Arbeitskraft könnte so bei steigender Produktivkraft der Arbeit beständig fallen mit gleichzeitigem, fortwährendem Wachstum der Lebensmittelmasse des Arbeiters. Relativ aber, d.h. verglichen mit dem Mehrwert, sänke der Wert der Arbeitskraft beständig und erweiterte sich also die Kluft zwischen den Lebenslagen von Arbeiter und Kapitalist.¹¹

¹¹ „Wenn in der Produktivität der Industrie eine Änderung Platz greift, so daß durch eine gegebene Menge von Arbeit und Kapital mehr oder weniger erzeugt wird, kann der Lohnanteil sich offensichtlich ändern, während die Menge, welche dieser Anteil darstellt, die gleiche bleibt, oder die Menge kann sich ändern, während der Anteil unverändert bleibt.“ ([J. Cazenove,] „*Outlines of Political Economy etc.*“, p. 67.)

Question 1048 *Describe a situation in which workers get higher wages because of the capitalists' attempts to increase their profits.*

I.e. [Ricardo]

⇓ The section concludes with brief remarks about Ricardo, who first formulated these laws. On this occasion, Marx distinguishes the rate of surplus-value from the rate of profits:

523:2/o Ricardo was the first who accurately formulated the three laws we have above stated. But he falls into the following errors: (1) he looks upon the special conditions under which these laws hold good as the general and sole conditions of capitalist production. He knows no change, either in the length of the working-day, or in the intensity of labor; consequently with him there can be only one variable factor, viz., the productive power of labor; (2), and this error vitiates his analysis much more than (1), he has not, any more than have the other economists, investigated surplus-value as such, i.e., independently of its particular forms, such as profit, rent, etc. He therefore confounds together the laws of the rate of surplus-value and the laws of the rate of profit. The rate of profit is, as we

546:1/o Ricardo hat die oben aufgestellten drei Gesetze zuerst streng formuliert. Die Mängel seiner Darstellung sind, 1. daß er die besondern Bedingungen, innerhalb deren jene Gesetze gelten, für die sich von selbst verstehenden, allgemeinen und ausschließlichen Bedingungen der kapitalistischen Produktion ansieht. Er kennt keinen Wechsel, weder in der Länge des Arbeitstags noch in der Intensität der Arbeit, so daß bei ihm die Produktivität der Arbeit von selbst zum einzigen variablen Faktor wird;—2. aber, und dies verfälscht seine Analyse in viel höherem Grad, hat er ebensowenig wie die andern Ökonomen jemals den Mehrwert als solchen untersucht, d.h. unabhängig von seinen besondern Formen, wie Profit, Grundrente usw. Er wirft daher die Gesetze über die Rate des Mehr-

have already said, the ratio of the surplus-value to the total capital advanced; the rate of surplus-value is the ratio of the surplus-value to the variable part of that capital. Assume that a capital C of £500 is made up of raw material, instruments of labor, etc. (c) to the amount of £400; and of wages (v) to the amount of £100; and further, that the surplus-value (s) is £100. Then we have rate of surplus-value $s/v = £100/£100 = 100\%$. But the rate of profit $s/c = £100/£500 = 20\%$. It is, besides, obvious that the rate of profit may depend on circumstances that in no way affect the rate of surplus-value. I shall show in Book III that, with a given rate of surplus-value, we may have any number of rates of profit, and that various rates of surplus-value may, under given conditions, express themselves in a single rate of profit.

werts unmittelbar zusammen mit den Gesetzen der Profitrate. Wie schon gesagt, ist die Profitrate das Verhältnis des Mehrwerts zum vorgeschossenen Gesamtkapital, während die Mehrwertsrate das Verhältnis ist des Mehrwerts zum bloß variablen Teil dieses Kapitals. Nimm an, ein Kapital von 500 Pfd.St. (C) teile sich in Rohstoffe, Arbeitsmittel etc. für zusammen 400 Pfd.St. (c) und in 100 Pfd.St. Arbeitslöhne (v); daß ferner der Mehrwert = 100 Pfd. St. (m). Dann ist die Mehrwertsrate $m/v = 100\text{Pfd.St.}/100\text{Pfd.St.} = 100\%$. Aber die Profitrate $m/C = 100\text{Pfd.St.}/500\text{Pfd.St.} = 20\%$. Es leuchtet außerdem ein, daß die Profitrate abhängen kann von Umständen, die keineswegs auf die Mehrwertsrate einwirken. Ich werde später im Dritten Buch dieser Schrift beweisen, daß dieselbe Rate des Mehrwerts sich in den verschiedensten Profitraten und verschiedene Raten des Mehrwerts, unter bestimmten Umständen, sich in derselben Profitrate ausdrücken können.

II. Working Day Constant, Productivity of Labor Constant, Intensity of Labor Variable

The second section discusses variations in intensity, always contrasting them with the variations in productivity discussed in the first section. Marx asks whether the three laws derived in the first section are still valid.

524:1/o Increased intensity of labor means increased expenditure of labor in a given time. Hence a working-day of more intense labor is embodied in more products than is one of less intense labor, the length of each day being the same. Increased productive power of labor also, it is true, will supply more products in a given working-day. But in this latter case, the value of each single product falls, for it costs less labor than before; in the former case, that value remains unchanged, for each article costs the same labor as before. Here we have an increase in the number of products, unaccompanied by a fall in their individual prices: as their number increases, so does the sum of their prices. By contrast, if the productive power

547:1 Wachsende Intensität der Arbeit unterstellt vermehrte Ausgabe von Arbeit in demselben Zeitraum. Der intensivere Arbeitstag verkörpert sich daher in mehr Produkten als der minder intensive von gleicher Stundenzahl. Mit erhöhter Produktivkraft liefert zwar auch derselbe Arbeitstag mehr Produkte. Aber im letztern Fall sinkt der Wert des einzelnen Produkts, weil es weniger Arbeit als vorher kostet, im erstern Fall bleibt er unverändert, weil das Produkt nach wie vor gleich viel Arbeit kostet. Die Anzahl der Produkte steigt hier ohne Fall ihres Preises. Mit ihrer Anzahl wächst ihre Preissumme, während dort dieselbe Wertsomme sich nur in vergrößerter Produktenmasse darstellt.

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increases, then the same value is only represented in a greater mass of products.

↑ This is however not the whole story. Two paragraphs later, in 525:2, Marx says that this effect is negated if intensity rises everywhere.

This discussion of intensity seems different than that in chapter Fifteen, section 15.3.c, especially footnote 157 to paragraph 412:2/o. In that earlier discussion, intensity does not affect the value produced at all, unless the intensity is so strong that it requires a shortened working-day. In the present discussion, intensity affects the value produced, but if the intensification is generalized, then the increase in value produced is lost again.

↓ If the intensity of labor exceeds the social norm, then more value is produced per hour. The first of the three laws from the first section no longer holds: if intensity varies, the value product of a day's labor is not constant but variable.

Hence the length of the working-day being constant, a day's labor of increased intensity will be embodied in an increased value and, the value of money remaining unchanged, in more money. The value created varies with the extent to which the intensity of labor deviates from its normal intensity in the society. A given working-day, therefore, no longer creates a constant, but a variable value; in a day of 12 hours of ordinary intensity, the value created is, say \$1.44, but with increased intensity, the value created may be \$1.68, \$1.92, or more.

Bei gleichbleibender Stundenzahl verkörpert sich also der intensivere Arbeitstag in höherem Wertprodukt, also, bei gleichbleibendem Wert des Geldes, in mehr Geld. Sein Wertprodukt variiert mit den Abweichungen seiner Intensität von dem gesellschaftlichen Normalgrad. Derselbe Arbeitstag stellt sich also nicht wie vorher in einem konstanten, sondern in einem variablen Wertprodukt dar, der intensivere, zwölfstündige Arbeitstag z.B. in 7 sh., 8 sh. usw. statt in 6 sh. wie der zwölfstündige Arbeitstag von gewöhnlicher Intensität.

↓ Second law: surplus-value and wages are no longer necessarily negatively related.

It is clear that, if the value created by a day's labor increases from, say, \$1.44 to \$1.92 then the two parts into which this value is divided, viz., price of labor-power and surplus-value, may both of them increase simultaneously, and either equally or unequally. They may both simultaneously increase from 72 cents to 96.

Es ist klar: Variiert das Wertprodukt des Arbeitstags, etwa von 6 auf 8 sh., so können beide Teile dieses Wertprodukts, Preis der Arbeitskraft und Mehrwert, gleichzeitig wachsen, sei es in gleichem oder ungleichem Grad. Preis der Arbeitskraft und Mehrwert können beide zur selben Zeit von 3 sh. auf 4 wachsen, wenn das Wertprodukt von 6 auf 8 steigt.

↓ But even if hourly wages rise, this does not necessarily raise the wages above the value of the labor-power consumed, since higher intensity also results in greater wear and tear.

Here, the rise in the price of labor-power does not necessarily imply that the price has risen above the value of labor-power. On the contrary, the rise in price may be accompanied by a fall below its value. This occurs whenever the rise in the price of labor-power does not compensate for its increased wear and tear.

Preiserhöhung der Arbeitskraft schließt hier nicht notwendig Steigerung ihres Preises über ihren Wert ein. Sie kann umgekehrt von einem Fall unter ihren Wert begleitet sein. Dies findet stets statt, wenn die Preiserhöhung der Arbeitskraft ihren beschleunigten Verschleiß nicht kompensiert.

↓ Regarding the third law, the effect of intensity on surplus-value is more direct than that of productivity. This gives an important difference between increases in intensity and

II. Length and Productivity Constant, Intensity Variable

increases in productivity as means to increase surplus-value: Higher productivity leads to higher relative surplus-value only if the products produced enter the habitual consumption of the workers. By contrast, higher intensity *always* leads to higher surplus-value.

525:1 We know that, with transitory exceptions, a change in the productive power of labor does not cause any change in the value of labor-power, nor consequently in the magnitude of surplus-value, unless the products of the industries affected are articles habitually consumed by the laborers. In the present case this condition no longer applies. For when the variation is either in the duration or in the intensity of labor, there is always a corresponding change in the magnitude of the value created, independently of the nature of the article in which that value is embodied.

Higher intensity of labor seems therefore more advantageous to the capitalist than higher productivity. ↓ But higher intensity differs from increases in productivity in yet another way, which reduces this advantage again. (This might be considered the negation of the first difference.)

525:2 If the intensity of labor were to increase simultaneously and equally in every branch of industry, then the new and higher degree of intensity would become the normal degree for the society, and would therefore cease to be taken account of.

↓ But this is only true nationally. On an international scale, the advantages of higher intensity remain. (This would then be the negation of the negation):

But still, even then, the intensity of labor would be different in different countries, and would modify the international application of the law of value. The more intense working-day of one nation would be represented by a greater sum of money than would the less intense day of another nation.¹²

¹² "All things being equal, the English manufacturer can turn out a considerably larger amount of work in a given time than a foreign manufacturer, so much as to counterbalance the difference of the working-days, between 60 hours a week here, and 72 or 80 elsewhere." (Rep. of Insp. of Fact. for 31st Oct., 1855, p. 65.) The most infallible means for reducing this qualitative difference between the English and Continental working hour would be a law shortening quantitatively the length of the working-day in

547:2/o Man weiß, daß mit vorübergehenden Ausnahmen ein Wechsel in der Produktivität der Arbeit nur dann einen Wechsel in der Wertgröße der Arbeitskraft und daher in der Größe des Mehrwerts bewirkt, wenn die Produkte der betroffenen Industriezweige in den gewohnheitsmäßigen Konsum des Arbeiters eingehn. Diese Schranke fällt hier fort. Ob die Größe der Arbeit extensiv oder intensiv wechsele, ihrem Größenwechsel entspricht ein Wechsel in der Größe ihres Wertprodukts, unabhängig von der Natur des Artikels, worin sich dieser Wert darstellt.

548:1 Steigerte sich die Intensität in allen Industriezweigen gleichzeitig und gleichmäßig, so würde der neue höhere Intensitätsgrad zum gewöhnlichen gesellschaftlichen Normalgrad und hörte damit auf, als extensive Größe zu zählen.

Indes blieben selbst dann die durchschnittlichen Intensitätsgrade der Arbeit bei verschiedenen Nationen verschieden und modifizierten daher die Anwendung des Wertgesetzes auf unterschiedne Nationalarbeitstage. Der intensivere Arbeitstag der einen Nation stellt sich in höherem Geldausdruck dar als der minder intensive der andren.¹²

¹² „Bei sonst gleichen Umständen kann der englische Fabrikant in einer bestimmten Zeit eine beträchtlich größere Menge von Arbeit herausbringen als ein ausländischer Fabrikant, so viel, um den Unterschied der Arbeitstage zwischen 60 Stunden wöchentlich hier und 72 bis 80 Stunden anderwärts auszugleichen.“ („Reports of Insp. of Fact. for 31st Oct. 1855“, p. 65.) Größere gesetzliche Verkürzung des Arbeitstags in den kontinentalen Fabriken wäre das unfehlbarste Mittel zur Verminderung dieser Differenz zwischen der

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Continental factories.

| kontinentalen und der englischen Arbeitsstunde.

↑ Obviously, Marx is thinking here of the evidence cited in chapter Fifteen, for instance Gardner's experiment in 414:2–3.

The Moore-Aveling translation of this footnote makes a point not given in the German: the legal shortening of the labor day would be a quantitative measure, while the result would be a qualitative change in the working day. I.e., this is an example where quantity turns into quality. Again Marx stresses here that a too long working-day decreases surplus-value, something he already said in chapter 10 and/or 15.

III. Productivity and Intensity Constant, Length Variable

Now we turn to the third possibility of keeping two variables constant and varying the third, namely, we are varying the length of the working-day.

526:1–5 The working-day may vary in two ways. It may be made either longer or shorter.

| 548:2 Der Arbeitstag kann nach zwei Richtungen variieren. Er kann verkürzt oder verlängert werden.

↑ This short paragraph in the German edition is supplemented, in the English edition, by a much longer discussion, enumerating the form which our above three laws obtain in the present situation. According to a footnote in the Vintage edition, this passage is not present in any of the German editions of *Capital*. It first appears in the French translation of 1872, and was presumably inserted by Engels into the first English translation.

From our present data, and within the limits of the assumptions made previously we obtain the following laws: (1.) The working-day creates a greater or lesser amount of value in proportion to its length—thus, a variable and not a constant quantity of value. (2.) Every change in the relation between the magnitudes of surplus-value and of the value of labor-power arises from a change in the absolute magnitude of the surplus-labor, and consequently of the surplus-value. (3.) The absolute value of labor-power can change only in consequence of the reaction exercised by the prolongation of surplus-labor upon the wear and tear of labor-power. Every change in this absolute value is therefore the effect, but never the cause, of a change in the magnitude of surplus-value.

↑ I.e., the three laws are overturned completely and replaced by their opposites.

We begin with the case in which the working-day is shortened.

III.a. [Shortening of the work day]

The results will be qualitatively different depending on whether the work day is lengthened or shortened. Marx first discusses a situation where the work day is *shortened*.

526:6 (1.) A shortening of the working-day under the conditions given above leaves the value of labor-power and, with it, the necessary labor-time unaltered. It reduces the surplus-labor and surplus-value. Along with the absolute magnitude of the latter, its relative magnitude also falls, *i.e.*, its magnitude relatively to the value of labor-power whose magnitude remains unaltered. Only by lowering the price of labor-power below its value could the capitalist save himself harmless.

548:3 1. Verkürzung des Arbeitstags unter den gegebenen Bedingungen, d.h. gleichbleibender Produktivkraft und Intensität der Arbeit, läßt den Wert der Arbeitskraft und daher die notwendige Arbeitszeit unverändert. Sie verkürzt die Mehrarbeit und den Mehrwert. Mit der absoluten Größe des letzteren fällt auch seine relative Größe, d.h. seine Größe im Verhältnis zur gleichbleibenden Wertgröße der Arbeitskraft. Nur durch Herabdrückung ihres Preises unter ihren Wert könnte der Kapitalist sich schadlos halten.

If intensity and productivity of the working-day remain constant, then a shortening of the working day without lowering wages will lead to lower surplus-value. Remember that Marx is holding the real daily value of labor-power constant; a shortening of hours would therefore have to be accompanied by a rise in hourly wages. ↓ *Such a situation*, Marx argues, *rarely occurs in reality*. Usually productivity and intensity increase when the working-day is shortened:

526:7 All the usual arguments against the shortening of the working-day assume that it takes place under the conditions we have here supposed to exist; but in reality the very contrary is the case: a change in the productive power and intensity of labor either precedes, or immediately follows, a shortening of the working-day.¹³

548:4/o Alle hergebrachten Redensarten wider die Verkürzung des Arbeitstags unterstellen, daß das Phänomen sich unter den hier vorausgesetzten Umständen ereignet, während in der Wirklichkeit umgekehrt Wechsel in der Produktivität und Intensität der Arbeit entweder der Verkürzung des Arbeitstags vorhergehen oder ihr unmittelbar nachfolgen.¹³

¹³ "There are compensating circumstances . . . which the working of the Ten Hours' Act has brought to light." (Rep. of Insp. of Fact. for 31st Oct. 1848," p. 7.)

¹³ „Es gibt kompensierenden Umstände . . . die durch die Durchführung des Zehnstundengesetzes ans Licht gebracht worden sind.“ („Reports of Insp. of Fact. for 31st October 1848“, p. 7.)

In other words, the capitalist system finds ways to neutralize the profit-damaging effects of a shortening of the working-day. The result which one would expect according the mathematical formula does therefore not obtain. Next, let us see what happens if the working-day is *lengthened*.

III.b. [Lengthening of the work day]

526:8/o (2.) Lengthening of the working-day. Let the necessary labor-time be 6 hours, or the value of labor-power 72 cents; also let the surplus-labor be 6 hours or the surplus-value 72 cents. The whole working-

549:1 2. Verlängerung des Arbeitstags: Die notwendige Arbeitszeit sei 6 Stunden oder der Wert der Arbeitskraft 3 sh., ebenso Mehrarbeit 6 Stunden und Mehrwert 3 sh. Der Gesamtarbeitstag beträgt dann 12

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day then amounts to 12 hours and is embodied in a value of \$1.44. If, now, the working-day be lengthened by 2 hours and the price of labor-power remain unaltered, the surplus-value increases both absolutely and relatively. Although there is no absolute change in the value of labor-power, it suffers a relative fall.

After deriving his result in terms of absolute changes, Marx re-states it in terms of relative changes. This procedure is analogous to 522:2. But the result is the exact opposite. Earlier, the relative change was result of an absolute change in the value of labor-power, now it is the result of an absolute change in surplus-value:

Under the conditions assumed in 1. there could not be a change of relative magnitude in the value of labor-power without a change in its absolute magnitude. Here, on the contrary, the change of relative magnitude in the value of labor-power is the result of the change of absolute magnitude in surplus-value.

A longer work day allows wages and profits to rise simultaneously:

527:1 Since the value in which a day's labor is embodied, increases with the length of that day, it is evident that the surplus-value and the price of labor-power may simultaneously increase, either by equal or unequal quantities.

↓ This is the same result as with intensification of labor, see 524:1/o:

This simultaneous increase is therefore possible in two cases, one, the actual lengthening of the working-day, the other, an increase in the intensity of labor unaccompanied by such lengthening.

Such a simultaneous rise in price of labor-power and surplus-value may occur when wages are paid as time wages, as long as the incremental wage due to longer hours exceeds the higher reproduction cost necessary to allow full recovery of the labor-power. But if the working-day is made too long, the price of labor-power falls below its value:

527:2 When the working-day is prolonged, the price of labor-power may fall below its value, although that price be nominally unchanged or even rise. The value of a day's labor-power is, as will be remembered, estimated from its normal average duration, or from the normal duration of life among the laborers, and from corresponding normal transformations of organized bodily matter into motion,¹⁴ in con-

Stunden und stellt sich in einem Wertprodukt von 6 sh. dar. Wird der Arbeitstag um 2 Stunden verlängert und bleibt der Preis der Arbeitskraft unverändert, so wächst mit der absoluten die relative Größe des Mehrwerts. Obgleich die Wertgröße der Arbeitskraft absolut unverändert bleibt, fällt sie relativ.

Unter den Bedingungen von I. konnte die relative Wertgröße der Arbeitskraft nicht wechseln ohne einen Wechsel ihrer absoluten Größe. Hier, im Gegenteil, ist der relative Größenwechsel im Wert der Arbeitskraft das Resultat eines absoluten Größenwechsels des Mehrwerts.

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549:2 Da das Wertprodukt, worin sich der Arbeitstag darstellt, mit seiner eignen Verlängerung wächst, können Preis der Arbeitskraft und Mehrwert gleichzeitig wachsen, sei es um gleiches oder ungleiches Inkrement.

Dies gleichzeitige Wachstum ist also in zwei Fällen möglich, bei absoluter Verlängerung des Arbeitstags und bei wachsender Intensität der Arbeit ohne solche Verlängerung.

549:3 Mit verlängertem Arbeitstag kann der Preis der Arbeitskraft unter ihren Wert fallen, obgleich er nominell unverändert bleibt oder selbst steigt. Der Tageswert der Arbeitskraft ist nämlich, wie man sich erinnern wird, geschätzt auf ihre normale Durchschnittsdauer oder die normale Lebensperiode des Arbeiters und auf entsprechenden, normalen, der Menschennatur angemessenen Umsatz von Lebenssubstanz in

formity with the nature of man. Up to a certain point, the increased wear and tear of labor-power, inseparable from a lengthened working-day, may be compensated by higher wages. But beyond this point the wear and tear increases in geometrical progression, and every condition suitable for the normal reproduction and functioning of labor-power is suppressed. The price of labor-power and the degree of its exploitation cease to be commensurable quantities.

¹⁴ “The amount of labor which a man had undergone in the course of 24 hours might be approximately arrived at by an examination of the chemical changes which had taken place in his body, changed forms in matter indicating the anterior exercise of dynamic force.” (Grove: “On the Correlation of Physical Forces.”)

Bewegung.¹⁴ Bis zu einem gewissen Punkt kann der von Verlängerung des Arbeitstags untrennbare größere Verschleiß der Arbeitskraft durch größeren Ersatz kompensiert werden. Über diesen Punkt hinaus wächst der Verschleiß in geometrischer Progression und werden zugleich alle normalen Reproduktions- und Betätigungsbedingungen der Arbeitskraft zerstört. Der Preis der Arbeitskraft und ihr Exploitationsgrad hören auf, miteinander kommensurable Größen zu sein.

¹⁴ „Die Arbeitsmenge, die ein Mann im Laufe von 24 Stunden geleistet hat, kann annähernd durch eine Untersuchung der chemischen Veränderungen bestimmt werden, die in seinem Körper stattgefunden haben, da veränderte Formen in der Materie die vorherige Anspannung von Bewegungskraft anzeigen.“ (Grove, „On the Correlation of Physical Forces“, [p. 308, 309].)

One sees that the effects of shortening the workday are not symmetric to those of lengthening it. This is why Marx investigated them separately.

IV. Simultaneous Variations in Length, Productivity, and Intensity of Labor

527:3/o Obviously, a large number of combinations are here possible. Any two of the factors may vary and the third remain constant, or all three may vary at once. They may vary either in the same or in different degrees, in the same or in opposite directions, with the result that the variations counteract one another, either wholly or in part. Nevertheless the analysis of every possible case is easy in view of the results given in I., II., and III. The effect of every possible combination may be found by treating each factor in turn as variable, and the other two constant for the time being.

This should not be understood to mean that one can use a linear superposition of the earlier results. E.g. if the working day was shortened, it was not realistic to assume that production and intensity are constant. Each case must still be considered separately, because each case might lead to a different σ transform.

We shall, therefore, notice, and that briefly, but two important cases.

550:1 Es ist hier offenbar eine große Anzahl Kombinationen möglich. Je zwei Faktoren können variieren und einer konstant bleiben, oder alle drei können gleichzeitig variieren. Sie können in gleichem oder ungleichem Grad variieren, in derselben oder entgegengesetzter Richtung, ihre Variationen sich daher teilweis oder ganz aufheben. Indes ist die Analyse aller möglichen Fälle nach den unter I, II und III gegebenen Aufschlüssen leicht. Man findet das Resultat jeder möglichen Kombination, indem man der Reihe nach je einen Faktor als variabel und die andren zunächst als konstant behandelt.

Wir nehmen hier daher nur noch kurze Notiz von zwei wichtigen Fällen.

IV.a. [Fall in Productivity Compensated by a Longer Working-Day]

A. Diminishing productive power of labor with a simultaneous lengthening of the working-day.

In speaking of diminishing productive power of labor, we here refer to diminution in those industries whose products determine the value of labor-power; such a diminution, for example, as results from decreasing fertility of the soil, and from the corresponding dearness of its products. Take the working-day at 12 hours and the value created by it at \$1.44, of which one half replaces the value of the labor-power, the other forms the surplus-value. Suppose, in consequence of the increased dearness of the products of the soil, that the value of labor-power rises from 72 cents to 96, and therefore the necessary labor-time from 6 hours to 8.

550:2 1. Abnehmende Produktivkraft der Arbeit mit gleichzeitiger Verlängerung des Arbeitstags:

550:3 Wenn wir hier von abnehmender Produktivkraft der Arbeit sprechen, so handelt es sich von Arbeitszweigen, deren Produkte den Wert der Arbeitskraft bestimmen, also z.B. von abnehmender Produktivkraft der Arbeit infolge zunehmender Unfruchtbarkeit des Bodens und entsprechender Verteuerung der Bodenprodukte. Der Arbeitstag sei zwölfstündig, sein Wertprodukt 6 sh., wovon die Hälfte den Wert der Arbeitskraft ersetze, die andre Hälfte Mehrwert bilde. Der Arbeitstag zerfällt also in 6 Stunden notwendiger Arbeit und 6 Stunden Mehrarbeit. Infolge der Verteuerung der Bodenprodukte steige der Wert der Arbeitskraft von 3 auf 4 sh., also die notwendige Arbeitszeit von 6 auf 8 Stunden.

What happens to surplus-value in this situation depends on whether the working-day is lengthened, and by how much. ↓ Marx discusses three cases, each of which keeps a different magnitude constant (presumably due to the action of a different generative mechanism):

If there be no change in the length of the working-day, the surplus-labor would fall from 6 hours to 4, the surplus-value from 72 cents to 48. If the day be lengthened by 2 hours, *i.e.*, from 12 hours to 14, the surplus-labor remains at 6 hours, the surplus-value at 72 cents, but the surplus-value decreases compared with the value of labor-power, as measured by the necessary labor-time. If the day be lengthened by 4 hours, *viz.*, from 12 hours to 16, the proportional magnitudes of surplus-value and value of labor-power, of surplus-labor and necessary labor, continue unchanged, but the absolute magnitude of surplus-value rises from 72 cents to 96, that of the surplus-labor from 6 hours to 8, an increment of 33 1/3%.

Bleibt der Arbeitstag unverändert, so fällt die Mehrarbeit von 6 auf 4 Stunden, der Mehrwert von 3 auf 2 sh. Wird der Arbeitstag um 2 Stunden verlängert, also von 12 auf 14 Stunden, so bleibt die Mehrarbeit 6 Stunden, der Mehrwert 3 sh., aber seine Größe fällt im Vergleich zum Wert der Arbeitskraft, gemessen durch die notwendige Arbeit. Wird der Arbeitstag um 4 Stunden verlängert, von 12 auf 16 Stunden, so bleiben die proportionellen Größen von Mehrwert und Wert der Arbeitskraft, Mehrarbeit und notwendiger Arbeit unverändert, aber die absolute Größe des Mehrwerts wächst von 3 auf 4 sh., die der Mehrarbeit von 6 auf 8 Arbeitsstunden, also um 1/3 oder 33 1/3%.

↑ The organizing principle behind the above list was the different generative mechanisms keeping the different magnitudes constant. ↓ Next, Marx gives a summary which emphasizes the possible outcomes. The first case of a constant working-day and diminishing surplus-value is left out. Marx only discusses outcomes in which surplus-value is at least absolutely constant (although relatively it may fall):

Therefore, with diminishing productive power of labor and a simultaneous lengthening of the working-day, the absolute magnitude of surplus-value may continue unaltered, at the same time that its relative magnitude diminishes; its relative magnitude may continue unchanged, at the same time that its absolute magnitude increases; and, provided the lengthening of the day be sufficient, both may increase.

Next, Marx brings a specific historical example of such a lengthening of the working-day. Between 1799 and 1815, prices of necessities increased, and daily wages increased as well, although not as much. This did not cause a fall in profits, although Ricardo and West had assumed so, since they overlooked the increase in intensity and length of the work day.

In the period between 1799 and 1815 the increasing price of provisions led in England to a nominal rise in wages, although the real wages, expressed in the workers' means of consumption, fell. From this fact West and Ricardo drew the conclusion, that the diminution in the productive power of agricultural labor had brought about a fall in the rate of surplus-value, and they made this assumption of a fact that existed only in their imaginations, the starting-point of important investigations into the relative magnitudes of wages, profits, and rent. But, as a matter of fact, surplus-value had at that time, thanks to the increased intensity of labor, and to the prolongation of the working-day, increased both in absolute and relative magnitude. This was the period in which the right to prolong the hours of labor to an outrageous extent was established;¹⁵ the period that was especially characterised by an accelerated accumulation of capital here, by pauperism there.¹⁶

Marx refers here to West's [We15] and Ricardo's [Ric15]. These pamphlets were contributions to the 1815 controversy about the Corn Laws.

Footnotes 15 and 16 bring quotes from Malthus and the Essays on Political Economy which stress the things Ricardo and West had overlooked, namely, the prolongation and intensification of the working-day.

¹⁵ "Corn and labor rarely march quite abreast; but there is an obvious limit, beyond which they cannot be separated. With regard to the unusual exertions made by the laboring classes in periods of dearness, which produce the fall of wages noticed in the evidence" (namely, before the Parlia-

Bei abnehmender Produktivkraft der Arbeit und gleichzeitiger Verlängerung des Arbeitstags kann also die absolute Größe des Mehrwerts unverändert bleiben, während seine proportionelle Größe fällt; seine proportionelle Größe kann unverändert bleiben, während seine absolute Größe wächst, und, je nach dem Grad der Verlängerung, können beide wachsen.

551:1 Im Zeitraume von 1799 bis 1815 führten die steigenden Preise der Lebensmittel in England eine nominelle Lohnsteigerung herbei, obwohl die wirklichen, in Lebensmitteln ausgedrückten Arbeitslöhne fielen. Hieraus schlossen West und Ricardo, daß die Verminderung der Produktivität der Ackerbauarbeit ein Fallen der Mehrwertssrate verursacht hätte, und machten diese nur in ihrer Phantasie gültige Annahme zum Ausgangspunkt wichtiger Analysen über das relative Größenverhältnis von Arbeitslohn, Profit und Grundrente. Dank der gesteigerten Intensität der Arbeit und der erzwungenen Verlängerung der Arbeitszeit war aber der Mehrwert damals absolut und relativ gewachsen. Es war dies die Periode, worin die maßlose Verlängerung des Arbeitstags sich das Bürgerrecht erwarb,¹⁵ die Periode, speziell charakterisiert durch beschleunigte Zunahme hier des Kapitals, dort des Pauperismus.¹⁶

¹⁵ „Korn und Arbeit stimmen selten vollkommen überein; aber es gibt eine offensichtliche Grenze, über die hinaus sie nicht getrennt werden können. Die außergewöhnlichen Anstrengungen der arbeitenden Klassen in Zeiten der Teuerung, die den Rückgang der Löhne bewirken, von dem

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mentary Committee of Inquiry, 1814–15), “they are most meritorious in the individuals, and certainly favour the growth of capital. But no man of humanity could wish to see them constant and unremitted. They are most admirable as a temporary relief; but if they were constantly in action, effects of a similar kind would result from them, as from the population of a country being pushed to the very extreme limits of its food.” (Malthus: “Inquiry into the Nature and Progress of Rent,” Lond., 1815, p. 48, note.) All honour to Malthus that he lays stress on the lengthening of the hours of labor, a fact to which he elsewhere in his pamphlet draws attention, while Ricardo and others, in face of the most notorious facts, make invariability in the length of the working-day the groundwork of all their investigations. But the conservative interests, which Malthus served, prevented him from seeing that an unlimited prolongation of the working-day, combined with an extraordinary development of machinery, and the exploitation of women and children, must inevitably have made a great portion of the working-class “supernumerary,” particularly whenever the war should have ceased, and the monopoly of England in the markets of the world should have come to an end. It was, of course, far more convenient, and much more in conformity with the interests of the ruling classes, whom Malthus adored like a true priest, to explain this “over-population” by the eternal laws of Nature, rather than by the historical laws of capitalist production.

in den Aussagen“ (nämlich vor den parlamentarischen Untersuchungsausschüssen 1814/15) „die Rede war, gereichen den einzelnen sehr zum Verdienst und begünstigen sicher das Anwachsen des Kapitals. Aber kein human Empfindender kann wünschen, daß sie ungemindert und ununterbrochen vor sich gehen. Sie sind höchst bewundernswert als zeitweilige Abhilfe; aber wenn sie immer stattfänden, so würden sie ähnlich wirken wie eine im Verhältnis zu ihrer Subsistenz bis an die alleräußerste Grenze getriebene Bevölkerung.“ (Malthus, „Inquiry into the Nature and Progress of Rent“, Lond. 1815, p. 48, Note.) Es macht Malthus alle Ehre, daß er den Ton legt auf die auch die auch an anderer Stelle in seinem Pamphlet direkt besprochne Verlängerung des Arbeitstags, während Ricardo und andre, im Angesicht der schreiendsten Tatsachen, die konstante Größe des Arbeitstags allen ihren Untersuchungen zugrund legten. Aber die konservativen Interessen, deren Knecht Malthus war, hinderten ihn zu sehn, daß die maßlose Verlängerung des Arbeitstags, zugleich mit außerordentlicher Entwicklung der Maschinerie und der Exploitation der Weiber- und Kinderarbeit, einen großen Teil der Arbeiterklasse „überzählig“ machen mußten, namentlich sobald die Kriegsnachfrage und das englische Monopol des Weltmarkts aufhörten. Es war natürlich weit bequemer und den Interessen der herrschenden Klassen, die Malthus echt pfäffisch idolatriert, viel entsprechender, diese „Übervölkerung“ aus den ewigen Gesetzen der Natur als aus den nur historischen Naturgesetzen der kapitalistischen Produktion zu erklären.

¹⁶ “A principal cause of the increase of capital, during the war, proceeded from the greater exertions, and perhaps the greater privations of the laboring classes, the most numerous in every society. More women and children were compelled by necessitous circumstances, to enter upon laborious occupations, and former workmen were, from the same cause, obliged to devote a greater portion of their time to increase production.” (Essays on Pol. Econ., in which are illustrated the principal causes of the present national distress. Lond., 1830, p. 248.)

¹⁶ „Eine grundlegende Ursache des Anwachsens des Kapitals während des Krieges lag in den größeren Anstrengungen und vielleicht auch den größeren Entbehrungen der arbeitenden Klassen, die in jeder Gesellschaft die zahlreichsten sind. Durch die Dürftigkeit ihrer Lage wurden mehr Frauen und Kinder genötigt, Arbeit zu nehmen; und jene, die schon früher Arbeiter waren, waren aus demselben Grunde gezwungen, einen größeren Teil ihrer Zeit der Vermehrung der Produktion zu widmen.“ („Essays on Political Econ. in which are illustrated the Principal Causes of the Present National Distress“, London 1830, p. 248.)

IV.b. [Shortening of Working-Day While Productivity and Intensity of Labor Increase]

B. Increasing intensity and productive power of labor with simultaneous shortening of the working-day.

In one respect, increased productive power and greater intensity of labor have a like effect. They both augment the mass of articles produced in a given time. Both, therefore, shorten that portion of the working-day which the laborer needs to produce his means of subsistence or their equivalent.

Marx first describes the limits beyond which this shortening of the working-day cannot go, and then explores the conditions under which these limits can be reached.

The minimum length of the working-day is fixed by this necessary but contractible portion of it.

551:2 2. Zunehmende Intensität und Produktivkraft der Arbeit mit gleichzeitiger Verkürzung des Arbeitstags:

552:1 Gesteigerte Produktivkraft der Arbeit und ihre wachsende Intensität wirken nach einer Seite hin gleichförmig. Beide vermehren die in jedem Zeitabschnitt erzielte Produktenmasse. Beide verkürzen also den Teil des Arbeitstags, den der Arbeiter zur Produktion seiner Lebensmittel oder ihres Äquivalents braucht.

Die absolute Minimalgrenze des Arbeitstags wird überhaupt gebildet durch diesen seinen notwendigen, aber kontraktiblen Bestandteil.

↓ Under capitalism this minimal limit of the working-day can never be reached. Can it be reached under socialism? Yes it can, but in this case the necessary labor itself will be lengthened:

If the whole working-day were to shrink to the length of this portion, surplus-labor would vanish, a consummation utterly impossible under the régime of capital. Only a removal of the capitalist form of production allows to reduce the length of the working-day to the necessary labor-time. But, other things being equal, the latter would in that case extend its limits. On the one hand, because the notion of “means of subsistence” would considerably expand, and the laborer would lay claim to an altogether different standard of life. On the other hand, because a part of what is now surplus-labor, would then count as necessary labor; I mean the labor of forming a fund for reserve and accumulation.

Schrumpfte darauf der ganze Arbeitstag zusammen, so verschwände die Mehrarbeit, was unter dem Regime des Kapitals unmöglich. Die Beseitigung der kapitalistischen Produktionsform erlaubt, den Arbeitstag auf die notwendige Arbeit zu beschränken. Jedoch würde die letztere, unter sonst gleichbleibenden Umständen, ihren Raum ausdehnen. Einerseits weil die Lebensbedingungen des Arbeiters reicher und seine Lebensansprüche größer. Andererseits würde ein Teil der jetzigen Mehrarbeit zur notwendigen Arbeit zählen, nämlich die zur Erzielung eines gesellschaftlichen Reserve- und Akkumulationsfonds nötige Arbeit.

↑ This is one of the few places in *Capital* where Marx speaks about socialism. ↓ While the previous paragraph emphasized the similarity of the effects of intensity and productivity, the next paragraph makes an interesting remark regarding the differences between higher productivity and higher intensity of labor: Higher productivity is a cause and higher intensity an effect of the shortening of the labor time.

The more the productive power of labor increases, the more can the working-day be shortened; and the more the working-day is

552:2 Je mehr die Produktivkraft der Arbeit wächst, um so mehr kann der Arbeitstag verkürzt werden, und je mehr der Arbeitstag

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shortened, the more can the intensity of labor increase.

verkürzt wird, desto mehr kann die Intensität der Arbeit wachsen.

Besides higher productivity in the direct labor process, Marx mentions two more ways of economizing the overall expenditure of labor in society: the economy of means of production, and the avoidance of the waste of labor outside the production of commodities.

From a social point of view, the productivity of labor can also be increased by its economy, increases in the same ratio as the economy of labor, which includes not only economy of the means of production, but also the avoidance of all useless labor.

Gesellschaftlich betrachtet, wächst die Produktivität der Arbeit auch mit ihrer Ökonomie. Diese schließt nicht nur die Ökonomisierung der Produktionsmittel ein, sondern die Vermeidung aller nutzlosen Arbeit.

⇓ This last-mentioned economy cannot be achieved in capitalism:

The capitalist mode of production, while on the one hand enforcing economy in each individual business, on the other hand begets, by its anarchical system of competition, the most outrageous squandering of labor-power and of the social means of production, not to mention the creation of a vast number of employments, at present indispensable, but in themselves superfluous.

Während die kapitalistische Produktionsweise in jedem individuellen Geschäft Ökonomie erzwingt, erzeugt ihr anarchisches System der Konkurrenz die maßloseste Verschwendung der gesellschaftlichen Produktionsmittel und Arbeitskräfte, neben einer Unzahl jetzt unentbehrlicher, aber an und für sich überflüssiger Funktionen.

The inequality of the distribution of labor between the classes is the “absolute limit” preventing this waste of labor.

The intensity and productive power of labor being given, the time which society is bound to devote to material production is shorter, and as a consequence, the time at its disposal for the free development, intellectual and social, of the individual is greater, in proportion as the work is more and more evenly divided among all the able-bodied members of society, and as a particular class is more and more deprived of the power to shift the natural burden of labor from its own shoulders to those of another layer of society. In this direction, the shortening of the working-day finds at last a limit in the generalisation of labor. In capitalist society spare time is acquired for one class by converting the whole life-time of the masses into labor-time.

552:3 Intensität und Produktivkraft der Arbeit gegeben, ist der zur materiellen Produktion notwendige Teil des gesellschaftlichen Arbeitstags um so kürzer, der für freie, geistige und gesellschaftliche Betätigung der Individuen eroberte Zeitteil also um so größer, je gleichmäßiger die Arbeit unter alle werkfähigen Glieder der Gesellschaft verteilt, je weniger eine Gesellschaftsschichte die Notwendigkeit der Arbeit von sich selbst ab- und einer andren Schichte zuwälzen kann. Die absolute Grenze für die Verkürzung des Arbeitstags ist nach dieser Seite hin die Allgemeinheit der Arbeit. In der kapitalistischen Gesellschaft wird freie Zeit für eine Klasse produziert durch Verwandlung aller Lebenszeit der Massen in Arbeitszeit.

Question 1051 Explain how the generality of labor is an absolute limit to the shortening of the labor that has to be performed in capitalist society.

This discussion of the society-wide economizing of labor ends the chapter. The need for more free time for the working-class is a pervasive theme in *Capital*, see 305:1–2 and elsewhere.

18. Various Formulae for the Rate of Surplus-Value

In this short chapter, Marx argues that s/v is the correct formula for the rate of surplus-value, while the formula $s/(s+v)$ is a “false” expression of the degree of exploitation (). Such an argument is incomprehensible to modern economists, who would say that it is a matter of definition, and that it is in principle possible to work with either definition. How can a mathematical definition be false?

To answer this we need to know that Marx had a different understanding of mathematics than most modern mathematicians. In the modern understanding, a *variable* is a number which does not have a given value but can assume different values. For Marx, however, a variable is a number in motion. The concept of motion is absent in modern math. Surplus-value comes from the fact that part of capital is not constant but variable, it moves. The rate of surplus-value is the rate at which that part of the capital moves which is in motion.

While this chapter discusses a formula used by the economists which is a false expression of reality, the next chapter will discuss something much more pernicious, namely, a social form on the surface of the economy, used by the surface agents every day, which is a false expression of the underlying relations.

We have seen that the rate of surplus-value is represented by the following formulae:

553:1 Man hat gesehen, daß die Rate des Mehrwerts sich darstellt in den Formeln:

$$\begin{aligned} I. \quad & \frac{\text{surplus-value}}{\text{variable capital}} \left(\frac{s}{v} \right) \\ &= \frac{\text{surplus-value}}{\text{value of labor-power}} \\ &= \frac{\text{surplus-labor}}{\text{necessary labor}}. \end{aligned}$$

$$\begin{aligned} I. \quad & \frac{\text{Mehrwert}}{\text{Variables Kapital}} \left(\frac{m}{v} \right) \\ &= \frac{\text{Mehrwert}}{\text{Wert der Arbeitskraft}} \\ &= \frac{\text{Mehrarbeit}}{\text{Notwendige Arbeit}}. \end{aligned}$$

The first two of these formulae represent, as a ratio of values, that which, in the third, is represented as a ratio of the times during which those values are produced. These formulae, which can be used interchangeably, are conceptually strict.

Die zwei ersten Formeln stellen als Verhältnis von Werten dar, was die dritte als Verhältnis der Zeiten, worin diese Werte produziert werden. Diese einander ersetzenden Formeln sind begrifflich streng.

↑ “Conceptually strict” presumably means that these formulas are an accurate representation of the concepts involved. ↓ Classical political economy contains the essence of these formulas but not the formulas themselves:

We therefore find them implied, but not worked out consciously, in classical Political Economy.

Man findet sie daher wohl der Sache nach, aber nicht bewußt ausgearbeitet in der klassischen politischen Ökonomie.

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⇓ However if classical political economy does use explicit formulas, they have a different form:

There we meet, however, with the following derivative formulae.

Hier begegnen wir dagegen den folgenden abgeleiteten Formeln:

$$\begin{aligned} \text{II. } & \frac{\text{surplus-labor}}{\text{working-day}} \\ &= \frac{\text{surplus-value}}{\text{value of the product}} \\ &= \frac{\text{surplus-product}}{\text{total product}}. \end{aligned}$$

$$\begin{aligned} \text{II. } & \frac{\text{Mehrarbeit}}{\text{Arbeitstag}} \\ &= \frac{\text{Mehrwert}}{\text{Produktenwert}} \\ &= \frac{\text{Mehrprodukt}}{\text{Gesamtprodukt}}. \end{aligned}$$

One and the same ratio is expressed here alternately as a ratio of labor-times, of the values in which those labor-times are embodied, and of the products in which those values exist. It is of course understood that, by "Value of the Product", is meant only the value newly created in a working-day, the constant part of the value of the product being excluded.

Eine und dieselbe Proportion ist hier abwechselnd ausgedrückt in der Form der Arbeitszeiten, der Werte, worin sie sich verkörpern, der Produkte, worin diese Werte existieren. Es wird natürlich unterstellt, daß unter Wert des Produkts nur das Wertprodukt des Arbeitstags zu verstehn, der konstante Teil des Produktenwerts aber ausgeschlossen ist.

↑ These formulas are mathematically equivalent expressions of a certain proportion, ⇓ but this proportion is a false expression of the rate of exploitation.

In all of these formulae (II.), the actual degree of exploitation of labor, or the rate of surplus-value, is falsely expressed.

553:4–554:1 In allen diesen Formeln ist der wirkliche Exploitationsgrad der Arbeit oder die Rate des Mehrwerts falsch ausgedrückt.

⇓ In order to show that this is a false expression Marx brings a numerical example:

Let the working-day be 12 hours. Then, making the same assumptions as in former instances, the real degree of exploitation of labor will be represented in the following proportions.

Der Arbeitstag sei 12 Stunden. Mit den andren Annahmen unsres früheren Beispiels stellt sich in diesem Fall der wirkliche Exploitationsgrad der Arbeit dar in den Proportionen:

$$\begin{aligned} & \frac{6 \text{ hours surplus labor}}{6 \text{ hours necessary labor}} = \\ & \frac{\text{surplus-value of 3 sh.}}{\text{variable capital of 3 sh.}} = 100\%. \end{aligned}$$

From formulae II. we get very differently,

$$\begin{aligned} & \frac{6 \text{ hours surplus-labor}}{\text{Working-day of 12 hours}} = \\ & \frac{\text{surplus-value 3 sh.}}{\text{value created of 6 sh.}} = 50\%. \end{aligned}$$

$$\begin{aligned} & \frac{6 \text{ Stunden Mehrarbeit}}{6 \text{ Stunden notwendige Arbeit}} = \\ & \frac{\text{Mehrwert von 3 sh.}}{\text{Variables Kapital von 3 sh.}} = 100\%. \end{aligned}$$

Nach den Formeln II erhalten wir dagegen:

$$\begin{aligned} & \frac{6 \text{ Stunden Mehrarbeit}}{\text{Arbeitstag von 12 Stunden}} = \\ & \frac{\text{Mehrwert von 3 sh.}}{\text{Wertprodukt von 6 sh.}} = 50\%. \end{aligned}$$

⇓ This second formula does not express the rate of self-expansion of the variable capital but the ratio in which the product is divided between capitalist and laborer.

These derivative formulae express, in reality, only the proportion in which the working-day, or the value produced by it, is divided between capitalist and laborer.

↓ As in chapter Nineteen, Marx's first proof that this expression is false is a quantitative proof. If the derivative formula were correct, the rate of surplus-value could not be 100 percent or higher.

If considered as immediate expressions of the degree of self-expansion of capital, they give rise to the following erroneous law: Surplus-labor or surplus-value can never reach 100%.¹⁷

↓ Such an erroneous law can be found in the literature.

¹⁷ Thus, e.g., in "Dritter Brief an v. Kirchmann von Rodbertus. Widerlegung der Ricardo'schen Lehre von der Grundrente und Begründung einer neuen Rententheorie." Berlin, 1851. I shall return to this letter later on; in spite of its erroneous theory of rent, it sees through the nature of capitalist production.

↓ The rest of the footnote is a digression by Engels:

¹⁷ *ctd* {Note added in the 3rd German edition: It may be seen from this how favorably Marx judged his predecessors, whenever he found in them real progress, or new and sound ideas. The subsequent publications of Robertus' letters to Rud. Meyer has shown that the above acknowledgement by Marx wants restricting to some extent. In those letters this passage occurs: "Capital must be rescued not only from labor, but from itself, and that will be best effected, by treating the acts of the industrial capitalist as economic and political functions, that have been delegated to him with his capital, and by treating his profit as a form of salary, because we still know no other social organization. But salaries may be regulated, and may also be reduced if they take too much from wages. The irruption of Marx into Society, as I may call his book, must be warded off . . . Altogether, Marx's book is not so much an investigation into capital, as a polemic against the present form of capital, a form which he confounds with the concept itself of capital." ("Briefe, etc., von Dr. Robertus-Jagetzow, herausgg. von Dr. Rud. Meyer", Berlin 1881, vol. I, pp. 111, 46. Brief von Rodbertus.) To such ideological commonplaces did the bold attack by Robertus in his "social letters" finally dwindle down.—F.E.}

554:2/o Diese abgeleiteten Formeln drücken in der Tat die Proportion aus, worin der Arbeitstag oder sein Wertprodukt sich zwischen Kapitalist und Arbeiter teilt.

Gelten sie daher als unmittelbare Ausdrücke des Selbstverwertungsgrades des Kapitals, so gilt das falsche Gesetz: Die Mehrarbeit oder der Mehrwert kann nie 100% erreichen.¹⁷

¹⁷ So z.B. in „Dritter Brief an v. Kirchmann von Rodbertus. Widerlegung der Ricardo'schen Theorie von der Grundrente und Begründung einer neuen Rententheorie“, Berlin 1851. Ich komme später auf diese Schrift zurück, die trotz ihrer falschen Theorie von der Grundrente das Wesen der kapitalistischen Produktion durchschaut.

¹⁷ *ctd* —{Zusatz zur 3. Auf.—Man sieht hier, wie wohlwollend Marx seine Vorgänger beurteilte, sobald er bei ihnen einen wirklichen Fortschritt, einen richtigen neuen Gedanken fand. Inzwischen hat die Veröffentlichung der Rodbertusschen Briefe an Rud. Meyer obige Anerkennung einigermaßen eingeschränkt. Da heißt es: „Man muß das Kapital nicht bloß vor der Arbeit, sondern auch vor sich selbst retten, und das geschieht in der Tat am besten, wenn man die Tätigkeit des Unternehmer-Kapitalisten als volks- und staatswirtschaftliche Funktionen auf faßt, die ihm durch das Kapitaleigentum delegiert sind, und seinen Gewinn als eine Gehaltsform, weil wir noch keine andre soziale Organisation kennen. Gehälter dürfen aber geregelt werden und auch ermäßigt, wenn sie dem Lohn zu viel nehmen. So ist auch der Einbruch von Marx in die Gesellschaft—so möchte ich sein Buch nennen—abzuwehren . . . Überhaupt ist das Marxsche Buch nicht sowohl eine Untersuchung über das Kapital als eine Polemik gegen die heutige Kapitalform, die er mit dem Kapitalbegriff selbst verwechselt, woraus eben seine Irrtümer entstehn.“ („Briefe etc. von Dr. Rodbertus-Jagetzow“, herausgg. von Dr. Rud. Meyer, Berlin 1881, I. Bd., p. 111, 48. Brief von Rodbertus.)—In solchen ideologischen Gemeinplätzen versanden die in der Tat kühnen Anläufe

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der R.'schen „sozialen Briefe“.—F.E.}

Now Marx explains how these formulae give rise to this law.

Since the surplus-labor is only an aliquot part of the working-day, or since surplus-value is only an aliquot part of the value created, the surplus-labor must necessarily be always less than the working-day, or the surplus-value always less than the total value created.

Da die Mehrarbeit stets nur einen aliquoten Teil des Arbeitstags oder der Mehrwert stets nur einen aliquoten Teil des Wertprodukts bilden kann, ist die Mehrarbeit notwendigerweise stets kleiner als der Arbeitstag oder der Mehrwert stets kleiner als das Wertprodukt.

However this equality is not possible:

In order, however, to attain the ratio of 100/100 they must be equal. In order that the surplus-labor may absorb the whole day (i.e., an average day of any week or year), the necessary labor must sink to zero. But if the necessary labor vanishes, so too does the surplus-labor, since it is only a function of the former.

Um sich zu verhalten wie 100/100, müßten sie aber gleich sein. Damit die Mehrarbeit den ganzen Arbeitstag absorbiere (es handelt sich hier um den Durchschnittstag der Arbeitswoche, des Arbeitsjahrs usw.), müßte die notwendige Arbeit auf Null sinken. Verschwindet aber die notwendige Arbeit, so verschwindet auch die Mehrarbeit, da letztere nur eine Funktion der erstern.

↑ This mathematical exception is generated by a σ -transform: if the cost of living falls to zero, then the workers do not have to sell their labor-power. Compare 595:2–596. Instead of saying this directly, Marx uses the much more abstract argument that surplus-labor is a function of the necessary labor. This argument reveals at the same time why necessary labor, or the variable capital, must be in the denominator, instead of the total capital.

Question 1052 *Why is surplus-labor a function of necessary labor, not of the total working-day?*

The ratio $\frac{\text{surplus-labor}}{\text{working-day}} = \frac{\text{surplus-value}}{\text{value created}}$ can therefore never reach the limit 100/100, still less rise to $100 + x/100$.

Die Proportion $\frac{\text{Mehrarbeit}}{\text{Arbeitstag}} = \frac{\text{Mehrwert}}{\text{Wertprodukt}}$ kann also niemals die Grenze 100/100 erreichen und noch weniger auf $100 + x/100$ steigen.

Now Marx explains that this law is a false law, i.e., that the degree of exploitation can rise above 100 percent.

But not so the rate of surplus-value, the real degree of exploitation of labor. Take, e.g., the estimate of L. de Lavergne, according to which the English agricultural laborer gets only 1/4, the capitalist (farmer) on the other hand 3/4 of the product¹⁸ or its value, apart from the question of how the booty is subsequently divided between the capitalist, the landlord, and others. According to this, this surplus-labor of the English agricultural laborer is to his necessary labor as 3:1, which gives a rate of exploitation of 300%.

Wohl aber die Rate des Mehrwerts oder der wirkliche Exploitationsgrad der Arbeit. Nimm z.B. die Schätzung des Herrn L. de Lavergne, wonach der englische Ackerbauarbeiter nur 1/4, der Kapitalist (Pächter) dagegen 3/4 des Produkts¹⁸ oder seines Werts erhält, wie die Beute sich immer zwischen Kapitalist und Grundeigentümer usw. nachträglich weiter verteile. Die Mehrarbeit des englischen Landarbeiters verhält sich danach zu seiner notwendigen Arbeit = 3 : 1, ein Prozentsatz der Exploitation von 300%.

Footnote 18 has two remarks, unrelated with each other:

¹⁸ That part of the product which merely replaces the constant capital advanced is of course left out in this calculation.—Mr. L. de Lavergne, a blind admirer of England, is inclined to estimate the share of the capitalist too low, rather than too high.

↓ One of the disadvantages of this false expression is that it does not allow for a variable working-day.

The textbook method of treating the working-day as constant in magnitude became solidified through the use of formulae II., because in them surplus-labor is always compared with a working-day of given length. The same holds good when the repartition of the value produced is exclusively kept insight. The working-day that has already been realized in given value, must necessarily be a day of given length.

↓ The necessity of this false form is hinted at in the text between dashes:

The habit of representing surplus-value and value of labor-power as fractions of the value created—a habit that originates in the capitalist mode of production itself, and whose import will hereafter be disclosed—conceals the very transaction that characterizes capital, namely the exchange of variable capital for living labor-power, and the consequent exclusion of the laborer from the product. Instead of the real fact, we have false semblance of an association, in which laborer and capitalist divide the product in proportion to the different elements which they respectively contribute towards its formation.¹⁹

The formula $s/s+v$ hides the specific character of the capital relation because the denominator $s + v$ suggests that capitalist and laborer first produce the total new value together and then divide it up in proportion to their contribution. But the capitalist did not contribute s ; s is labor performed by the worker, not by the capitalist. It is also not a division of the product between two partners because the worker has already sold his or her labor-power to the capitalist when the production process begins, he is no longer a partner who has a claim on the product. The fact that his wage is lower than the value produced comes from the fact that the worker is excluded from the means of production and therefore must give up part of his own labor in order to be allowed to feed himself. There is a deep social relation between workers and capitalists, but it is a class relation in which the capitalists appropriates for himself the labor of the worker, it is not an association or partnership.

¹⁹ All well-developed forms of capitalist production being forms of co-operation, nothing

¹⁸ Der Teil des Produkts, der nur das ausgelegte konstante Kapital ersetzt, ist bei dieser Rechnung selbstverständlich abgezogen.—Herr L. de Lavergne, blinder Bewunderer Englands, gibt eher zu niedriges als zu hohes Verhältnis.

555:1 Die Schulmethode, den Arbeitstag als konstante Größe zu behandeln, wurde durch Anwendung der Formeln II befestigt, weil man hier die Mehrarbeit stets mit einem Arbeitstag von gegebener Größe vergleicht. Ebenso, wenn die Teilung des Wertprodukts ausschließlich ins Auge gefaßt wird. Der Arbeitstag, der sich bereits in einem Wertprodukt vergegenständlicht hat, ist stets ein Arbeitstag von gegebenen Grenzen.

555:2 Die Darstellung von Mehrwert und Wert der Arbeitskraft als Bruchteilen des Wertprodukts—eine Darstellungsweise, die übrigens aus der kapitalistischen Produktionsweise selbst erwächst und deren Bedeutung sich später erschließen wird—versteckt den spezifischen Charakter des Kapitalverhältnisses, nämlich den Austausch des variablen Kapitals mit der lebendigen Arbeitskraft und den entsprechenden Ausschluß des Arbeiters vom Produkt. An die Stelle tritt der falsche Schein eines Assoziationsverhältnisses, worin Arbeiter und Kapitalist das Produkt nach dem Verhältnis seiner verschiedenen Bildungsfaktoren teilen.¹⁹

¹⁹ Da alle entwickelten Formen des kapitalistischen Produktionsprozesses Formen der Ko-

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is, of course, easier, than to make abstraction from their antagonistic character, and to transform them by a word into some form of free association, as is done by A. de Laborde in “De l’Esprit d’Association dans tout les interets de la communaute,” Paris 1818. H. Carey, the Yankee, occasionally performs this conjuring trick with like success, even with the relations resulting from slavery.

↓ Although formulas *II* do not correctly express the underlying causality, they contain enough information that the correct formulas can be derived from them:

By the way, formulae *II* can at any time be reconverted into formulae *I*. If, for instance, we have $\frac{\text{surplus-labor of 6 hours}}{\text{working-day of 12 hours}}$, then the necessary labor-time being 12 hours less the surplus-labor of 6 hours, we get the following result,

$$\frac{\text{surplus-labor of 6 hours}}{\text{necessary labor of 6 hours}} = \frac{100}{100}.$$

↑ This last remark, indicating that the mistake can easily be fixed, concludes the argument why formula *II* is wrong and formula *I* is right.

Question 1053 Why does Marx say *s/v* is right, but *s/(s+v)* is wrong?

Question 1054 Why must the value of labor-power (and not the value produced) be in the denominator of the mathematical expression for the rate of surplus-value?

After this, Marx comments about a third formula which he had also occasionally used:

There is a third formula which I have occasionally already anticipated; it is

$$\begin{aligned} \text{III.} \quad & \frac{\text{surplus-value}}{\text{value of labor-power}} \\ &= \frac{\text{surplus-labor}}{\text{necessary labor}} \\ &= \frac{\text{unpaid labor}}{\text{paid labor}}. \end{aligned}$$

After the investigations we have given above, it is no longer possible to be misled, by the formula $\frac{\text{unpaid labor}}{\text{paid labor}}$, into concluding that the capitalist pays for labor and not for labor-power. This formula is only a popular expression for $\frac{\text{surplus-labor}}{\text{necessary labor}}$.

↑ Of course, in the upcoming chapter Nineteen Marx will explain that on the surface of the economy, the price of labor-power is indeed paid in the form of a price of labor. But this should not mislead one to think that the commodity which changes hands between capitalist and laborer is the laborer’s labor. It is his labor-power, and it is paid as such. Marx is trying

operation sind, ist natürlich nichts leichter, als von ihrem spezifisch antagonistischen Charakter zu abstrahieren und sie so in freie Assoziationsformen umzufabeln, wie in des Grafen A. de Laborde, „De l’Esprit de l’Association dans tous les intérêts de la Communauté“, Paris 1818. Der Yankee H. Carey bringt dies Kunststück mit demselben Erfolg gelegentlich selbst für die Verhältnisse des Sklavensystems fertig.

555:3 Übrigens sind die Formeln *II* stets in die Formeln *I* rückverwandelbar. Haben wir z.B. $\frac{\text{Mehrarbeit von 6 Stunden}}{\text{Arbeitstag von 12 Stunden}}$, so ist die notwendige Arbeitszeit = Arbeitstag von zwölf Stunden minus Mehrarbeit von sechs Stunden, und so ergibt sich:

$$\frac{\text{Mehrarbeit von 6 Stunden}}{\text{Notwendige Arbeit von 6 Stunden}} = \frac{100}{100}.$$

556:1 Eine dritte Formel, die ich gelegentlich schon antizipiert habe, ist:

$$\begin{aligned} \text{III.} \quad & \frac{\text{Mehrwert}}{\text{Wert der Arbeitskraft}} \\ &= \frac{\text{Mehrarbeit}}{\text{Notwendige Arbeit}} \\ &= \frac{\text{Unbezahlte Arbeit}}{\text{Bezahlte Arbeit}}. \end{aligned}$$

556:2 Das Mißverständnis, wozu die Formel $\frac{\text{Unbezahlte Arbeit}}{\text{Bezahlte Arbeit}}$ verleiten könnte, als zahle der Kapitalist die Arbeit und nicht die Arbeitskraft, fällt nach der früher gegebenen Entwicklung fort. $\frac{\text{Unbezahlte Arbeit}}{\text{Bezahlte Arbeit}}$ ist nur populärer Ausdruck für $\frac{\text{Mehrarbeit}}{\text{Notwendige Arbeit}}$.

to make the same point here. The words “paid labor” and “unpaid labor” should not mislead one to think that the commodity that is traded is labor.

↓ Now Marx describes what is really going on. The category of paid and unpaid labor is not a category of exchange, but it pertains to the consumption of the labor-power by the capitalist. As such, the formula is appropriate.

The capitalist pays the value, or a price deviating from the value, of labor-power, and receives in exchange the disposal of the living labor-power itself. His usufruct is spread over two periods. During one the laborer produces a value that is only equal to the value of his labor-power; he produces its equivalent. Thus the capitalist receives in return for his advance of the price of the labor-power, a product ready made in the market. During the other period, the period of surplus-labor, the usufruct of the labor-power creates a value for the capitalist, that costs him no equivalent.²⁰ This expenditure of labor-power comes to him gratis. In this sense it is that surplus-labor can be called unpaid labor.

²⁰ Although the Physiocrats could not penetrate the mystery of surplus-value, yet this much was clear to them, viz., that it is “une richesse independante et disponible qu’il (the possessor) n’a point achetée et qu’il vend.” (Turgot: “Réflexions sur la Formation et la Distribution des Richesses”, p. 11.)

Capital, therefore, is not only, as Adam Smith says, the command over labor. It is essentially the command over unpaid labor. All surplus-value, whatever particular form (profit, interest, or rent), it may subsequently crystallize into, is in substance the materialization of unpaid labor. The secret of the self-expansion of capital resolves itself into having the disposal of a definite quantity of other people’s unpaid labor.

Der Kapitalist zahlt den Wert, resp. davon abweichenden Preis der Arbeitskraft und erhält im Austausch die Verfügung über die lebendige Arbeitskraft selbst. Seine Nutznießung dieser Arbeitskraft zerfällt in zwei Perioden. Während der einen Periode produziert der Arbeiter nur einen Wert = Wert seiner Arbeitskraft, also nur ein Äquivalent. Für den vorgeschossenen Preis der Arbeitskraft erhält so der Kapitalist ein Produkt vom selben Preis. Es ist, als ob er das Produkt fertig auf dem Markt gekauft hätte. In der Periode der Mehrarbeit dagegen bildet die Nutznießung der Arbeitskraft Wert für den Kapitalisten, ohne ihm einen Wertersatz zu kosten.²⁰ Er hat diese Flüssigmachung der Arbeitskraft umsonst. In diesem Sinn kann die Mehrarbeit unbezahlte Arbeit heißen.

²⁰ Obgleich die Physiokraten das Geheimnis des Mehrwerts nicht durchschauten, war ihnen doch so viel klar, daß er „ein unabhängiger und verfügbarer Reichtum ist, den er“ (der Besitzer davon) „nicht gekauft hat und den er verkauft“. (Turgot, „Réflexions sur la Formation et la Distribution des Richesses“, p. 11.)

556:3 Das Kapital ist also nicht nur Kommando über Arbeit, wie A. Smith sagt. Es ist wesentlich Kommando über unbezahlte Arbeit. Aller Mehrwert, in welcher besondern Gestalt von Profit, Zins, Rente usw. er sich später kristallisiere, ist seiner Substanz nach Materiatur unbezahlter Arbeitszeit. Das Geheimnis von der Selbstverwertung des Kapitals löst sich auf in seine Verfügung über ein bestimmtes Quantum unbezahlter fremder Arbeit.

Part VI.

Wages

19. The Transformation of the Value (and Respectively the Price) of Labor-Power into a Wage Based on Labor

What is the difference between “value of labor-power” and “wage”? Why does Marx speak here of a *transformation*? Answer: The German word for “wage,” “*Arbeitslohn*,” literally means “wage of labor.” The word itself specifies that the wage is a payment based on the *labor* performed.

The title above uses the translation
“wage based on labor”

recommend here, although both
Moore-Aveling and Fowkes only

say “wages.”

The transformation is therefore the following: although the worker is selling his labor *power*, his pay is based on the *labor* performed. If the worker were paid directly for his labor *power*, he would report to the employer his expenses necessary so that he can show up for work every day, and would be reimbursed for these expenses. In return, he would have to work a “normal” working day (whose determination has been described in chapter Ten). Clearly, this is not how these transactions are handled. The worker is paid by the hour or by his output, i.e., he is not paid for his labor *power* but for the *labor* actually performed, which is measured either by time or output.

When the capitalist consumes the laborer’s labor power, the laborer is involved because he must perform the labor. Not only the form of payment but also the delivery of the commodity sold by the worker looks exactly as if the worker was selling his labor, not his labor-power.

On the surface of the economy one can therefore say that labor is traded as a commodity which has a price. This is not an illusion but reality. But despite this dance on the surface, the commodity which the worker *really* sells to the capitalist is not labor but labor-power.

Perhaps the following example will clarify the distinction. You buy a large bottle of wine and drink it all down so that you get drunk. Is the money you give the sales clerk in the wine store paid for the wine or for getting drunk? For the wine of course. The money covers the cost of producing the wine, not the benefits of getting drunk. You use the money to get the wine, and the wine to get drunk. Had you used the wine in such a way that it did not make you drunk you still would have had to pay the same amount of money for the wine. Now assume you make an arrangement with the wine seller of the following sort: You take a blood test after drinking the wine and then pay the store clerk according to how drunk you are. This would be a transformation of the price of wine into a price of getting drunk. Needless to say, such a payment arrangement would not be practical. The wine seller would say: “I don’t care what you are using the wine for, just pay me for the bottle and get out of here.”

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If the employer buys your labor-power but pays you for how much you work, this is like buying wine from you and paying you according to how drunk he got. And here it even makes sense as a practical procedure. You, the seller of labor-power, have to be present anyway when your employer consumes your labor-power; after all you are the one who has to do the work. And the payment by labor performed gives you the incentive, or say better coerces you, to work hard. On the one hand, therefore, the wage form is a form of coercion whose necessity is generally acknowledged. Without it, the capitalist would not be able to get much labor out of his workers. But on the other hand this wage form also has the side effect of making the worker believe that all his labor is paid, thus hiding exploitation. In the present chapter, Marx stresses the importance of this side effect. It performs a function essential for capitalism; capitalism could not function if exploitation were not hidden.

Exam Question 1055 *Your employer gives you your paycheck. How can you tell whether your pay is based on your labor or not? According to Marx, the simple practical detail that the pay of most people is based on their labor has strategic importance for the functioning of the capitalist system. What is this importance?* [Answer](#), [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [1997ut](#), [1997sp](#), [1997WI](#), [1996ut](#).

Question 1056 *Both the fetish-like character of the commodity and the mystification of the wage form are important pillars of capitalism. Are these two pillars related to each other?* [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#).

To the worker it seems natural that he is paid for his labor. After selling his labor-power on the market, he cannot turn around to buy the things he needs, and then go home and enjoy them. First he must show up at work and work many arduous hours. What he *actually* gives the capitalist is therefore his labor. He must be there and witness, often in a painful way, how the capitalist consumes the commodity he sold him. This makes it natural to think the wage contract is a contract in which he sells his labor to the capitalist. If his wage is low this is taken as a sign that the productivity of his labor is low. Also the capitalist is often unaware that the commodity labor-power is his only source of surplus-value, since there is no difference between the purchase of labor and the purchase of any other condition of production. This chapter discusses the implications of this pervasive false consciousness.

Question 1059 *If it looks like a duck and walks like a duck and quacks like a duck, then it is a duck. What the laborer is selling the capitalist is paid as if it was her labor, and what the laborer gives the capitalist during the day is her labor. Why does Marx not draw the obvious conclusion from this that the laborer is selling her labor, but insist that she is selling her labor-power?* [Answer](#), [2013fa](#), [2011fa](#), [2009fa](#), [2008fa](#), [2007fa](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#), [2000fa](#), [1999SP](#), [1998WI](#), [1997WI](#), [1996sp](#), [1995ut](#).

The starting point of this chapter is not a false consciousness but a surface phenomenon: that what the laborers actually give the capitalists, and also their form of payment, seem to indicate that they sold their *labor*. Marx tries to show that the appearance generated by this surface phenomenon cannot be the truth. First he gives several reasons why the commodity traded between laborer and capitalist cannot be labor. Then he gives the correct interpretation of the transaction between capitalist and worker, which requires that a certain step is made consciously that classical political economy had made without being aware of it. If workers and capitalists think that the worker is selling labor and not labor-power, exploitation becomes invisible—because all labor appears as paid labor. Finally, Marx enumerates

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several specific features of the wage form which immunize it against being found out for what it is.

1. [Labor is Not a Commodity and there is No Such Thing as Value of Labor]

535:1 On the surface of bourgeois society, the compensation of the laborer *appears as price of labor*, a certain amount of money paid for a certain amount of labor.

557:1 Auf der Oberfläche der bürgerlichen Gesellschaft *erscheint* der Lohn des Arbeiters als *Preis der Arbeit*, ein bestimmtes Quantum Geld, das für ein bestimmtes Quantum Arbeit gezahlt wird.

The word translated here with “compensation” is “*Lohn*.” A more literal translation of “*Lohn*” would be “wage.” This is the only time in this chapter that Marx uses the term “wage” (*Lohn*), not “wage of labor” (*Arbeitslohn*). The reason might be stylistic: the word “labor” (*Arbeit*) or “laborer” (*Arbeiter*) appears already three times in the same sentence. But I think Marx wanted it to be a semantic difference. I think Marx is using “wage” here not as a short form of “wage of labor” (*Arbeitslohn*), but in the sense of “reward, compensation, retribution” (*Belohnung*). Indeed,

the French edition has “*rétribution*” on this place. It denotes the revenue of the laborer, without indicating for what or in what form this revenue is paid. This is why I translated “*Lohn*” here as “compensation” instead of “wage.”

In the French edition of *Capital* the title reads “transformation de la valeur ou du prix de la force de travail en salaire,” and the first sentence reads: “A la surface de la société bourgeoise la rétribution du travailleur se représente comme le salaire du travail: tant d’argent payé pour tant de travail.” (On the surface of bourgeois society, the

compensation of the laborer appears as the wage of labor: so and so much money paid for so and so much labor.) The German expression “price of labor (*Preis der Arbeit*)” is translated with “salaire du travail” (wage of labor). This makes it clear that the word “salaire” (wage) in the title is parallel to the word “wage of labor” in the first sentence, not with the word “compensation.” In the usual English translation, the choice of words suggests just the opposite, which makes it impossible to properly understand the first sentence.

↑ In capitalism, the workers can eat because they receive a wage for their labor. This is not an illusion but reality: the income of the worker is paid in the form: “so and so many dollars per unit of labor” (where the labor is either measured by the hour or by its output). I.e., the “price of labor” exists empirically. This price is not arbitrary but follows some regularities. The naive approach assumes that the money paid to the workers is the price of the commodity “labor,” and that this price, like the price of every other commodity, oscillates around the value of labor. Classical economics and also common sense follow this naive approach:

People speak of the value of labor, and call its expression in money the necessary or natural price of labor. On the other hand they speak of market prices of labor, i.e. prices which oscillate above or below this necessary price.

Man spricht hier vom Wert der Arbeit und nennt seinen Geldausdruck ihren notwendigen oder natürlichen Preis. Man spricht andererseits von Marktpreisen der Arbeit, d.h. über oder unter ihrem notwendigen Preis oszillierenden Preisen.

The “here” (*hier*) refers to the surface of bourgeois economy, which makes it clear that the “one” (*man*) does not refer to the researcher/observer but to people

in practical life. I hope my translation “people” (instead of “one”) makes this reasonably clear, therefore I left the “here” out. The translation filled in “price

of labor” instead of simply its price; this is justified by the 1st edition [megaII/5]433:1.

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Although (or because) this mode of thinking is entrenched, Marx looks at it critically. In order to show that the surface category “price of labor” is not the price of the commodity “labor,” i.e., the surface expression of the value of labor, Marx argues in four different ways that the commodity which the worker sells to the capitalist cannot be the worker’s labor.

1.a. [Labor Does Not Have Value]

Marx’s first argument is: price of labor cannot be the surface expression of the value of labor because labor, i.e., that which *creates* value, cannot itself *have* value. Marx himself, the Hegelian philosopher, knows that the attribution of value to labor is a categorical error. One of the main purposes of the chapter is to explain this to his readers. First he tries to explain the abstract philosophical fact that the source of value cannot itself have value. But he does not insist on this abstract argument, knowing that his readers will have difficulties accepting such a high level argument. After this he is going to show that the uncritical introduction of the incoherent concept “value of labor” into the discourse metastasizes: it causes confusions and unexplainable paradoxes elsewhere. The end effect is that capitalist relations seem to be very mysterious, their scientific explanation seems impossible. Marx carefully documents such confusions in the literature.

Similar to the logical development leading up to the paradox of the lazy worker, Marx develops a chain of logical arguments which lead to a result which we know must be wrong:

535:2 But what is the value of a commodity? The objectified form of the social labor expended in its production. And how do we measure the quantity of the commodity’s value? By the quantity of the labor contained in it. How would then the value, e.g., of a 12-hour working day be determined? By the 12 working hours contained in a working day of 12 hours, which is an absurd tautology.²¹

557:2 Aber was ist der Wert einer Ware? Gegenständliche Form der in ihrer Produktion verausgabten gesellschaftlichen Arbeit. Und wodurch messen wir die Größe ihres Werts? Durch die Größe der in ihr enthaltenen Arbeit. Wodurch wäre also der Wert z.B. eines zwölfstündigen Arbeitstags bestimmt? Durch die in einem Arbeitstag von 12 Stunden enthaltenen 12 Arbeitsstunden, was eine abgeschmackte Tautologie ist.²¹

A very similar formulation can be found in *Value, Price and Profit*, [mecw20]128:0:

To say that the value of a ten hours’ working day is equal to ten hours’ labor, or the quantity of labor contained in it, would be a tautological and, moreover, a nonsensical expression.

Why is the value of labor not only tautological but also nonsensical or absurd? Because Marx’s brand of realism implies that that which gives things value cannot itself have value. Let me explain. As Marx sees the relations of production in capitalism, value is real. It has real effects. These real effects must come from somewhere; there must be a real force driving them. Take for instance a mechanical toy moving around on your table. Since it is moving you can be sure that, if you open it up, you will find a battery inside. You will not be looking for another mechanical toy inside, because you already know that mechanical toys cannot be sources of energy themselves. Now if you open it up and you do find, for your great surprise, another mechanical toy inside which runs this mechanical toy, then you know you haven’t found the ultimate source of energy yet, but you have to open the inner mechanical toy as well.

In the same way, saying that labor imparts its own value on the things it produces displaces but does not solve the problem; now we have to find out where labor gets its value from. And

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as far as Marx is concerned such a displacement is wrong and unnecessary.

Labor is real and has real effects. It has these real effects not because it has value—on the contrary, labor is the real force in society which gives the products produced for the market their value. In our metaphor, labor is the battery and value is the mechanical toy. In this metaphor, the commodity labor-power is a mechanical toy which produces batteries.

Engels illustrates this as follows in this preface to *Capital II*, p. :

As an activity creating value, [labor] can no more have any particular value than gravity can have any particular weight, heat any particular temperature, electricity any particular strength of current.

I personally don't find this analogy very helpful. A more convincing analogy was given by one of my students:

Labor is the cause of value in commodities, but cannot in itself have value; as the sun is the cause of shadows but cannot in itself have a shadow.

This analogy can guide our analysis. In order to have a shadow, you not only need sunlight but also a body obscuring the sunlight. In order to have a value, you not only need labor but also some use-value in which this labor is materialized. It is important here that value is *congealed* labor.

Question 1061 Why is it an absurd tautology to say that the value of a 12-hour working day is determined by the 12 working hours contained in it? [2013fa](#), [2012fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#).

Question 1062 Marx says that labor cannot have value because it is the source which gives everything its value. How can labor give something which it doesn't have? [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#).

↓ Already in 1825, Samuel Bailey had written that the concept “value of labor” is absurd. Bailey's conclusion is not that labor does not have value but that Ricardo's labor theory of value is internally inconsistent. Nevertheless, Marx quotes Bailey at length in footnote 21:

²¹ ‘Mr. Ricardo, ingeniously enough, avoids a difficulty which, on a first view, threatens to encumber his doctrine, that value depends on the quantity of labor employed in production. If this principle is rigidly adhered to, it follows that the value of labor depends on the quantity of labor employed in producing it—which is evidently absurd.’

²¹ „Ricardo, geistreich genug, vermeidet eine Schwierigkeit, die auf den ersten Blick seiner Theorie entgegenzustehen scheint, daß nämlich der Wert von der in der Produktion verwandten Arbeitsmenge abhängig ist. Hält man an diesem Prinzip streng fest, so folgt daraus, daß der Wert der Arbeit abhängt von der zu ihrer Produktion aufgewandten Arbeitsmenge—was offenbar Unsinn ist.“

↓ Next Bailey describes a step in Ricardo's argument which he considers a maneuver to avoid this absurdity:

^{21 ctd} ‘By a dexterous turn, therefore, Mr. Ricardo makes the value of labor depend on the quantity of labor required to produce wages; or,—to give him the benefit of his own language, he maintains that the value of labor is to be estimated by the quantity of labor required to produce wages; by which he means the quantity of

^{21 ctd} „Durch eine geschickte Wendung macht deshalb Ricardo den Wert der Arbeit abhängig von der Menge der Arbeit, die zur Produktion des Lohnes erforderlich ist; oder, um mit seinen eigenen Worten zu sprechen, er behauptet, daß der Wert der Arbeit nach der Arbeitsmenge zu schätzen sei, die zur Produktion des Lohnes

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labor required to produce the money or commodities given to the laborer.’

benötigt wird; worunter er die Arbeitsmenge versteht, die zur Produktion des Geldes oder der Ware notwendig ist, die dem Arbeiter gegeben werden.“

↑ Bailey considers this step an evasion. Marx will discuss this same step a little later, in 537:3/oo. In Marx’s interpretation, Ricardo unconsciously did the right thing, namely, make the step from labor to labor-power. ↓ Not recognizing the kernel of truth in Ricardo’s maneuver, Bailey mistakes it for a primitive logical blunder. But arguably Bailey is the one who is blundering by bringing in an inappropriate metaphor:

^{21 ctd} ‘This is similar to saying, that the value of cloth is estimated, not by the quantity of labor bestowed on its production, but by the quantity of labor bestowed on the production of the silver, for which the cloth is exchanged’ [Bai25, pp. 50, 51].

^{21 ctd} „Gerade so gut könnte man sagen, daß der Wert von Tuch nicht nach der zu seiner Produktion verwandten Arbeitsmenge geschätzt werde, sondern nach der Arbeitsmenge, die zur Produktion des Silbers verwandt wurde, gegen welches das Tuch eingetauscht wird.“ [Bai25, pp. 50, 51].

Question 1063 *Bailey says: Defining the value of labor by the labor going into the things the worker can buy with his wages is like defining the value of cloth by the labor going into the silver for which the cloth is exchanged. Is this the right analogy?* 2004fa, 2002fa, 1997WI.

Marx does not comment on Bailey here at all. Instead, he turns to the next argument, which is not as philosophical as the previous argument but which turns to the concrete thing in which the social relation “value of labor” has its independent existence, the commodity “labor.” After all, when people go to the market they don’t buy and sell value but they buy and sell commodities.

1.b. [Practical Reasons why Labor is Not a Commodity]

In addition to the above theoretical argument that labor cannot have value, Marx brings now a different argument why labor cannot be a commodity:

535:3/o In any case, if labor were to be sold as a commodity in the market, it would have to exist before being sold.

558:1 Um als Ware auf dem Markt verkauft zu werden, müßte die Arbeit jedenfalls existieren, bevor sie verkauft wird.

The meaning of the word *jedenfalls* in this context is:

“whether or not you agree with my earlier abstract reasoning, you will

have to agree with me on these practical matters.”

↑ One can only buy and sell commodities which exist. In the relation between capitalist and laborer, labor springs into existence only after the market transaction, the hiring of the laborer, has already been concluded.

↓ Labor can achieve an independent existence which is no longer tied to the laborer by materializing itself in a product. But if a worker could do this, he would no longer be selling labor:

But if the worker were able to endow it with an independent existence, he would be selling a commodity, and not labor.²²

Könnte der Arbeiter ihr aber eine selbständige Existenz geben, so würde er Ware verkaufen und nicht Arbeit.²²

If the laborer had access to the means of production (which is what would allow him to give his labor an “independent existence”), then he would not be a laborer but sell his

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product. Here we see the grim social reality behind the logical distinction between labor, the source of value, and commodities, which have value: since the laborer does not have access to the means of production, he is barred from benefitting from his labor. Marx will hint at these connections also in footnote 26 to 537:2.

Footnote 22 documents, as did footnote 21, that Marx was not alone to notice this:

²² 'If you call labor a commodity, it is not like a commodity which is first produced in order to exchange, and then brought to market where it must exchange with other commodities according to the respective quantities of each which there may be in the market at the time; labor is created the moment it is brought to market; nay, it is brought to market before it is created.' [Ano21, pp. 75, 76].

²² „Wenn ihr Arbeit eine Ware nennt, so ist sie doch nicht einer Ware gleich, die zuerst zum Zweck des Tausches produziert und dann auf den Markt gebracht wird, wo sie mit anderen Waren, die grade auf dem Markte sind, in entsprechendem Verhältnis ausgetauscht wird; Arbeit wird in dem Augenblick geschaffen, in dem sie auf den Markt gebracht wird, ja sie wird auf den Markt gebracht, bevor sie geschaffen ist.“ [Ano21, pp. 75, 76].

Marx would agree that the laborer brings the commodity to market before the labor is performed, but he goes one step further: the commodity which the laborer brings to the market is not his labor but his labor-power. The performance of the labor does not happen in the market but it is the consumption of the commodity labor-power by the capitalist.

Marx argues from the point of view that the concept “price of labor” is a categorical error which pollutes the entire discourse. He seeks out those places in the literature where this categorical error leads to dead ends, to unexplainable puzzles. Without saying it explicitly, it is implicit in Marx’s presentation that in all these places, the puzzles can be resolved if one replaces “price of labor” by “price of labor-power.” Of course, the *social* contradiction, the exclusion of the laborer from the means of production, is not resolved by this replacement; but at least it gives us the theoretical categories to understand this situation.

Exam Question 1064 *Why can the laborer not use her labor-power to produce commodities and sell them, instead of selling her labor-power?* 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1997sp, 1997WI, 1996ut, 1996sp, 1995ut.

1.c. [Exchange of More for Less Labor Cannot Explain Capitalism]

536:1 Even if one disregards these contradictions, ...

Marx is about to give two more arguments. They have a different character. Instead of saying that labor cannot be a commodity, they say: a theory according to which the commodity traded between worker and capitalist is labor would either be inconsistent with the labor theory of value, or it would be unable to explain the striking phenomena of capitalism which need an explanation.

... a direct exchange of money, i.e. of objectified labor, with living labor, would either supersede the law of value, which only begins to develop freely on the basis of capitalist production, or supersede capitalist production itself, which rests directly on wage labor.

558:2 Von diesen Widersprüchen abgesehen, ...

... würde ein direkter Austausch von Geld, d.h. vergegenständlichter Arbeit, mit lebendiger Arbeit entweder das Wertgesetz aufheben, welches sich grade erst auf Grundlage der kapitalistischen Produktion frei entwickelt, oder die kapitalistische Produktion selbst aufheben, welche grade auf der Lohnarbeit beruht.

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↑ This claim needs an elaboration, which is given next. But the order is reversed. Marx discusses the supersession of capitalism first, and the supersession of the law of value second. Both alternatives take as their starting point the observation at the beginning of 535:2 that if labor is traded as a commodity then its value is the value this labor creates.

The working day of 12 hours is represented in a monetary value of, for example, \$1.44. There are two alternatives. Either equivalents are exchanged, and then the worker receives \$1.44 for 12 hours of labor; the price of his labor would be equal to the price of his product. In that case he produces no surplus-value for the buyer of his labor, the \$1.44 are not transformed into capital, and the basis of capitalist production vanishes. But it is precisely on that basis that he sells his labor and that his labor is wage labor.

Der Arbeitstag von 12 Stunden stellt sich z.B. in einem Geldwert von 6 sh. dar. Entweder werden Äquivalente ausgetauscht, und dann erhält der Arbeiter für zwölfstündige Arbeit 6 sh. Der Preis seiner Arbeit wäre gleich dem Preis seines Produkts. In diesem Fall produzierte er keinen Mehrwert für den Käufer seiner Arbeit, die 6 sh. verwandelten sich nicht in Kapital, die Grundlage der kapitalistischen Produktion verschwände, aber grade auf dieser Grundlage verkauft er seine Arbeit und ist seine Arbeit Lohnarbeit.

↑ This was the first alternative. If equal labor is exchanged against equal labor, then there can be no profits, but we know that capitalists do make profits. ↓ But if they do get profits, this supersedes the law of value:

Or else he receives, in return for 12 hours of labor, less than \$1.44, i.e. less than 12 hours of labor. 12 hours of labor are exchanged for 10, 6, etc. hours of labor. By equating unequal quantities in this way, one does not only do away with the notion of value. Such a self-eliminating contradiction cannot be a law; it cannot even be enunciated or formulated as one.²³

Oder er erhält für 12 Stunden Arbeit weniger als 6 sh., d.h. weniger als 12 Stunden Arbeit. Zwölf Stunden Arbeit tauschen sich aus gegen 10, 6 usw. Stunden Arbeit. Diese Gleichsetzung ungleicher Größen hebt nicht nur die Wertbestimmung auf. Ein solcher sich selbst aufhebender Widerspruch kann überhaupt nicht als Gesetz auch nur ausgesprochen oder formuliert werden.²³

Both translations say
"self-destructive contradiction" in
this last sentence. This is exactly

wrong, because it suggests an
active contradiction, while Marx
argues here that nonsensical

contradictions cannot be active.

If unequal labors are exchanged, then we cannot hope to explain capitalism by the law of value because (a) this unequal exchange would lead to the abolition of the law of value, and (b) such an unequal exchange cannot even be formulated as a law—i.e., the exchange of more labor for less labor is not only unable to explain capitalism but it cannot be an explanation of anything.

Ad (a): The consistent violation of the law of value means that the forces counteracting the law of value are stronger than the law of value itself. From this we would have to conclude that the law of value would in capitalism eventually be superseded by these counteracting forces. There is no evidence of this, on the contrary, markets are spreading.

Ad (b): We have seen many times that Marx does not deny the existence of surface contradictions, but uses them as warning signs alerting us that hidden mechanisms are at work. But this contradiction here cannot be based on the action of a hidden mechanism. It is self-eliminating: if 12 hours of labor are exchanged against 10, then 10 hours of labor are exchanged against 9.333 hours, consequently, 12 hours are exchanged against 9.333 hours.

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If one continues this one finds out that everything can be exchanged against everything, i.e., there are no laws governing the exchange.

Marx's silent retort to this is the entire book *Capital*, which does explain capitalism on the basis of the law of value.

Footnote 23 illustrates this. To Wakefield, the exchange between capital and labor is proof that the law of value does not hold in this exchange:

²³ 'Treating labor as a commodity, and capital, the produce of labor, as another, then, if the value of these two commodities were regulated by equal quantities of labor, a given amount of labor would ... exchange for that quantity of capital which had been produced by the same amount of labor; antecedent labor would ... exchange for the same amount as present labor. But the value of labor in relation to other commodities ... is not determined by equal quantities of labor' (E. G. Wakefield, in [Smi39, v. 1, pp. 230, 231, note].)

²³ „Wenn man Arbeit als eine Ware und Kapital, das Produkt von Arbeit, als eine andre behandelt, dann würde sich, wenn die Werte jener beiden Waren durch gleiche Arbeitsmengen bestimmt würden, eine gegebene Menge Arbeit ... gegen eine solche Menge Kapital austauschen die durch die gleiche Arbeitsmenge erzeugt worden wäre; vergangene Arbeit würde ... gegen die gleiche Menge eingetauscht wie gegenwärtige. Aber der Wert der Arbeit, im Verhältnis zu anderen Waren ... wird eben nicht durch gleiche Arbeitsmengen bestimmt.“ (E. G. Wakefield in [Smi39, v. 1, pp. 230, 231, Note].)

↑ Wakefield's use of the words "antecedent labor" and "present labor" leaves the possibility open that these two kinds of labor differ so much that this difference prevents them from being exchanged one for one. Marx discusses and rejects this possibility next. The contradiction Wakefield grapples with can only be resolved if one realizes that it is not labor but labor-power which is exchanged. As was the case with the Bailey quote, Marx does not point this out because right now he is still building up the contradiction, he has not yet rolled out the resolution of the contradiction.

Question 1066 *Do Marx's arguments that labor cannot have value also imply that services (i.e., a haircut) cannot have value?* [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#), [2000fa](#).

Marx's conclusion in this subsection is that a theory which holds that the laborer is selling *labor* to the capitalist cannot explain capitalism. In the framework of commodity exchange, surplus-value can be explained only if that what the laborer exchanges with the capitalist is not labor. Because if the worker gives labor, then the laws of commodity exchange cannot explain why the capitalist gives back to the worker less labor than he receives.

Question 1067 *Why does Marx give so many different reasons why wages are not derived from the value of labor? Isn't one reason enough?* [2013fa](#), [2012fa](#), [2007SP](#).

1.d. [Living Versus Objectified Labor Cannot Explain the Discrepancy]

It is tempting to explain this quantitative difference as follows: The labor which the worker gives the capitalist is living labor, and the labor the capitalist pays the worker in the form of money is objectified labor. This theme already came up in the footnote 23 to the preceding paragraph [536:1](#). Marx argues now that the difference between objectified and living labor *cannot* be the explanation of the exchange of more labor against less:

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536:2/o Attributing the exchange of more labor against less to the differences in form—one piece of labor being objectified, the other living²⁴—won't help either.

558:3/o Es nützt nichts, den Austausch von mehr gegen weniger Arbeit aus dem Formunterschied herzuleiten, daß sie das eine Mal vergegenständlicht, das andre Mal lebendig ist.²⁴

This formulation is already a refutation: The difference between living and objectified labor is merely a difference in *form*—and by giving something a different *form* one does not change its *quantity*. When living labor is materialized in a product and becomes objectified labor, it does not suddenly become more labor; it is still the same amount of labor, just in a different form. Just as the melting of ice cubes does not change the quantity of water of which they consist.

Footnote 24 brings another example from the literature, one which is more explicit than that in footnote 23, of an appeal to the difference between dead and living labor:

²⁴ 'It was necessary to reach an agreement' (yet another version of the social contract!) 'that every time completed labor was exchanged for labor still to be performed, the latter' (the capitalist) 'would receive a higher value than the former' (the worker). Simonde (i.e. Sismondi), [\[Si03, p. 37\]](#).

²⁴ „Man mußte vereinbaren“ (auch eine Ausgabe des „contrat social“), „daß, wann immer geleistete Arbeit gegen zu leistende Arbeit ausgetauscht wird, der letztere“ (le capitaliste) „einen höheren Wert erhalten müßte als der erstere“ (le travailleur). (Simonde (i.e. Sismondi) [\[Si03, p. 37\]](#).)

Question 1068 *Marx's parenthetical remark “yet another version of the social contract” is clearly a dismissal. He does not go into more detail here because he said it so many times. What are Marx's objections against the theory of the “contrat social”? 2004fa, 2003fa, 1995WI.*

Marx clinches his argument by pointing out that only *living* labor counts in the determination of the magnitude of value. In the water—ice analogy this would correspond to a proof that not the solidity of the ice cube, but the material of which it is made matters for the situation at hand.

This suggestion is even more absurd if one keeps in mind that the value of a commodity is determined not by the quantity of labor actually objectified in it, but by the quantity of living labor necessary to produce it. A commodity represents, say, 6 hours of labor. If an invention is made by which it can be produced in 3 hours, its value falls by half, even if the commodity is already produced. It now represents 3 hours of socially necessary labor instead of the former 6. It is therefore the amount of labor required to produce it, not the objectified form of that labor, which determines the magnitude of value of a commodity.

Dies ist um so abgeschmackter, als der Wert einer Ware nicht durch das Quantum wirklich in ihr vergegenständlichter, sondern durch das Quantum der zu ihrer Produktion notwendigen lebendigen Arbeit bestimmt wird. Eine Ware stelle 6 Arbeitsstunden dar. Werden Erfindungen gemacht, wodurch sie in 3 Stunden produziert werden kann, so sinkt der Wert auch der bereits produzierten Ware um die Hälfte. Sie stellt jetzt 3 statt früher 6 Stunden notwendige gesellschaftliche Arbeit dar. Es ist also das zu ihrer Produktion erheischte Quantum Arbeit, nicht deren gegenständliche Form, wodurch ihre Wertgröße bestimmt wird.

This last sentence sounds a little awkward because Marx chooses a formulation which drives home the point once more that form differences cannot give rise to quantitative differences. A more straightforward formulation, not overloaded with this methodological hint, would be:

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It is therefore the amount of living labor required to produce it, not the amount of labor already objectified in the commodity, which determines the magnitude of its value.

Marx's response to the objectified-labor subterfuge has turned into a counterattack: far from counting more than living labor, objectified labor has *no* power at all to determine market prices. If a product contains 500 hours, and a new method is developed to produce the same product in 50 hours, then 450 hours go out of the window. The magnitude of value is not a reward for the *past* effort of the producer, but an allocation of society's *present* labor-time.

Question 1069 *Why can the inequality in the exchange between worker and capitalist not be explained by the fact that the worker represents living labor, and the capitalist objectified labor?* [2011fa](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#), [1999SP](#), [1998WI](#), [1997WI](#), [1996sp](#), [1995WI](#).

Question 1071 *Marx argues that the value of a commodity is not determined by the dead labor in it but by the living labor needed to reproduce it. Can one not argue in the same spirit that exchange-value is not determined by labor at all? The labor producing the product no longer exists, and something that does not exist cannot have an effect either. Dead labor is, as the word says, dead. The only thing that exists on the market place is the product itself. Doesn't this mean that the exchange-value of the product must be determined by its use-value?* [2013fa](#).

Question 1072 *Don't all the contradictions in the concept of "value of labor" described here come from the fallacious attempt to derive the value of something from its use-value?* [2005fa](#), [1996sp](#).

2. [Value of Labor as an Imaginary Expression]

Until now, Marx showed that the naïve approach, which considers the price of labor to be the surface expression of the value of labor, leads to conclusions that contradict our other knowledge and cannot explain the facts. Now he supplies his own explanation. He begins with a closer look at the exchange process, paying attention to what exactly it is that is being exchanged:

[537:1](#) That which comes directly face to face with the money owner on the market, is in fact not labor, but the laborer. What the latter sells is his labor-power.

[559:1](#) Was dem Geldbesitzer auf dem Warenmarkt direkt gegenübertritt, ist in der Tat nicht die Arbeit, sondern der Arbeiter. Was letzterer verkauft, ist seine Arbeitskraft.

The shoemaker does not have to be present in person in order to sell his shoes; often he will give his shoes to a merchant who sells them for him. Not so with the laborer. He must be present in person—because he does not sell his labor but his labor-power, which is materialized in his own person.

After this closer look at the market, Marx also takes a closer look at the consumption of labor-power, i.e., the *production process*, in order to collect additional evidence that labor is not what is being exchanged:

[As soon as his labor begins, it has already ceased to belong to him; it can therefore no longer be sold by him.](#)

[Sobald seine Arbeit wirklich beginnt, hat sie bereits aufgehört, ihm zu gehören, kann also nicht mehr von ihm verkauft werden.](#)

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↑ The laborer has to obey the orders of the capitalist, i.e., the labor he performs does not belong to him.

↓ If labor is not what is exchanged then what are we to think of the *value* of labor?

Labor is the substance, the immanent measure of value, but has itself no value.²⁵

Die Arbeit ist die Substanz und das immanente Maß der Werte, aber sie selbst hat keinen Wert.²⁵

²⁵ ‘Labor the exclusive standard of value ... the creator of all wealth, no commodity’ (Thomas Hodgskin, [Hod27, p. 186]).

²⁵ Arbeit, der ausschließliche Maßstab des Wertes ... die Schöpferin allen Reichtums, ist keine Ware.“ (Th. Hodgskin, [Hod27, p. 186].)

“Value of labor” is therefore the value of something which is not exchanged and cannot have value. But we did not make up the concept “value of labor.” We found the price of labor on the surface of the economy, since workers are indeed paid for their labor. This price is not arbitrary but follows some regularity, therefore mainstream economics is justified in calling its center of gravity the “value” of labor. We are therefore in the contradictory position that we know labor does not have value, yet society is teeming with these seemingly impossible contraptions “value of labor.” In *Poverty of Philosophy*, [mecw6]129, Marx even said that capitalist society is “founded on labor as a commodity,” and it seems he still stands by this because he is about to quote this passage shortly, in footnote 23c196s626akmc to 537:2.

We know now that labor does not have value, therefore we must come up with a better explanation of the same phenomena which the mainstream tried to explain with the concept of “value of labor.” Since for Marx, the realist, all generative mechanisms are real, the question is for him: what is that thing really which the mainstream calls “value of labor”? This is why the passage from *Value, Price and Profit*, p. [mecw20]128:0, cited on p. 1116 above, continues as follows:

Of course, having once found out the true but hidden sense of the expression “*Value of Labor*,” we shall be able to interpret this irrational, and seemingly impossible application of value, in the same way that, having once made sure of the real movement of the celestial bodies, we shall be able to explain their apparent or merely phenomenal movements. [mecw20]128:0

The metaphor with the celestial bodies was also used in chapter Twelve, p. 321:2. On the current place in *Capital*, Marx brings a different also extremely interesting analogy for his desired explanation of the seemingly impossible concept “value of labor”: the mathematical construct of imaginary numbers.

537:2 In the expression ‘value of labor’, the concept of value is not only altogether extinguished, but it is turned into its opposite.

559:2 Im Ausdruck: „Wert der Arbeit“ ist der Wertbegriff nicht nur völlig ausgelöscht, sondern in sein Gegenteil verkehrt.

↑ The concept of value is “turned into its opposite” because this is not only the value of something which does not have value (because it does not contain labor, like the earth), but the value of something which *cannot* have value.

It is an imaginary expression, like, say, ‘value of the earth’.

Es ist ein imaginärer Ausdruck, wie etwa Wert der Erde.

The Fowkes translation: “It is an expression as imaginary as the

value of the earth.” does not capture the positive aspect which

will be the take-off point for the next step in the development:

“Value of earth” or “value of labor” are values of things which do not have value. (This

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is discussed in chapter Three, 112:1). The comparison with imaginary numbers is fitting, because an imaginary number is the square root of a number which does not have a square root. Nevertheless, mathematicians come to powerful conclusions using imaginary numbers, just working with them as if they were actual numbers. From the mathematics of imaginary numbers, Marx draws the following lesson: Since we know that the price of labor observable on the surface is not the direct reflection of the (nonexistent) value of labor, it must be a twisted reflection of some other hidden reality. These twists themselves will add side effects which need their own investigation:

These imaginary expressions however are expressions which arise from the relations of production themselves. They are categories for the forms of appearance of essential relations.

Diese imaginären Ausdrücke entspringen jedoch aus den Produktionsverhältnissen selbst. Sie sind Kategorien für Erscheinungsformen wesentlicher Verhältnisse.

The investigation of these forms of appearance (an investigation which must stay on the surface) will be given in chapters Twenty and Twenty-One. Chapter Nineteen, by contrast, will continue its search for those mechanisms in the deep structure of the economy which generate the observable price of labor. But before continuing, a short side remark with a long footnote. ↓ There are many other examples that things are different than what they appear.

That in their appearance things often represent themselves in an inverted manner is commonly understood in just about every science, except in political economy.²⁶

Daß in der Erscheinung die Dinge sich oft verkehrt darstellen, ist ziemlich in allen Wissenschaften bekannt, außer in der politischen Ökonomie.²⁶

Fowkes has: "That in their appearance things are often presented in an inverted way is something fairly familiar in just about every science, apart from political economy." Although Fowkes apparently meant to say that in addition to political economy, every other science makes mistakes too, the translation as it stands almost sounds like:

every science makes mistakes except political economy. Both of those are far from what Marx intended to say. The Moore-Aveling translation is much better: "That in their appearance things often represent themselves in inverted form is pretty well known in every science, except in political economy."

Marx meant to say: all other sciences know and take it for granted that there is a difference between appearance and the real underlying forces (which science tries to uncover), but political economy, meaning here mainstream economics, does not know this: they take the appearances at face value.

Question 1076 *Although the discrepancy between appearances and that what is really going on is essential for the functioning of the capitalist system, mainstream economics is, as Marx says in 677:2, pretty much the only science which is not aware of such differences. Are you surprised? 2012fa, 2011fa.*

Footnote 26 underscores the necessity to discuss even those forms which seem to be logically impossible. Marx cites Proudhon as an example of someone who does not recognize the "grim reality" (*furchtbare Realität*) lurking behind the seemingly logical impossibility of a "value of labor" and instead declares the expression "value of labor" a poetic license, i.e., a word for something which does not really exist.

²⁶ On the other hand, the attempt to explain such expressions as merely poetic licence only shows the impotence of the analysis. Hence, in answer to Proudhon's phrase, 'Labor is said to have value not as a commodity itself, but in view of the values which it is supposed potentially to

²⁶ Solche Ausdrücke dagegen für bloße licentia poetica zu erklären, zeigt nur die Ohnmacht der Analyse. Gegen Proudhons Phrase: „Man sagt von der Arbeit, daß sie einen Wert hat, nicht als eigentliche Ware, sondern im Hinblick auf die Werte, welche man in ihr potentiell enthalten an-

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contain. The value of labor is a figurative expression', etc., I have remarked 'In labor as a commodity, which is a grim reality, he' (Proudhon) 'sees nothing but a grammatical ellipsis. Thus the whole of existing society, founded on labor as a commodity, is henceforth founded on a poetic licence, a figurative expression. If society wants to "eliminate all the drawbacks" that assail it, well, let it eliminate all the ill-sounding terms, change the language; and to this end it has only to apply to the *Académie* for a new edition of its dictionary' (K. Marx, *The Poverty of Philosophy*, [mecw6]129.)

nimmt. Der Wert der Arbeit ist ein figürlicher Ausdruck etc.", bemerke ich daher: „Er sieht in der Ware Arbeit, die eine furchtbare Realität ist, nur eine grammatische Ellipse. Demgemäß ist die ganze heutige, auf den Warencharakter der Arbeit begründete Gesellschaft von jetzt an eine poetische Lizenz, auf einen figürlichen Ausdruck begründet. Will die Gesellschaft „alle Unzuträglichkeiten ausmerzen“, unter denen sie zu leiden hat, nun, so merze sie die anstößigen Ausdrücke aus, so ändere sie die Sprache, und sie braucht sich zu diesem Behufe nur an die Akademie zu wenden, um von ihr eine neue Ausgabe ihres Wörterbuchs zu verlangen.“ (K. Marx, „Misère de la Philosophie“, [mecw6]129.)

From 'poetic licence' there is only a small step to 'nothing at all', which leads us to the king of platitudes, J. B. Say. The footnote concludes with a careful documentation of the circularity in Say's arguments:

^{26 ctd} Of course it is still more convenient to understand by value nothing at all. Then one can without difficulty subsume everything under this category. Thus, for instance, J. B. Say asks 'What is value?' Answer: 'It is what a thing is worth.' What is price? 'The value of a thing expressed in money.' And why has 'labor on the land ... a value?' 'Because a price is put upon it.' Therefore value is what a thing is worth, and the land has its 'value' because its value is 'expressed in money'.

These are evasions, not explanations.

^{26 ctd} This is certainly a very simple way of explaining the why and wherefore of things.

^{26 ctd} Noch bequemer ist es natürlich, sich unter Wert gar nichts zu denken. Man kann dann ohne Umstände alles unter diese Kategorie subsumieren. So z.B. J. B. Say. Was ist „valeur“? Antwort: „Das, was eine Sache wert ist“ und was ist „prix“? Antwort: „Der Wert einer Sache ausgedrückt in Geld.“ Und warum hat die Arbeit der Erde ... einen Wert? Weil man ihr einen Preis zuerkennt. Also Wert ist, was ein Ding wert ist, und die Erde hat einen „Wert“, weil man ihren Wert „in Geld ausdrückt“.

^{26 ctd} Dies ist jedenfalls eine sehr einfache Methode, sich über das why und wherefore der Dinge zu verständigen.

3. [From Value of Labor-Power to Value of Labor]

After asserting that it is legitimate and indeed necessary to investigate the concept "value of labor" even though we know that labor itself cannot have value, Marx begins this investigation now.

3.a. [Looking the Classical Economists over the Shoulder]

As a first step in this investigation, Marx takes a close but critical look at

- how the classical economists of his time arrive at the concept "value of labor,"
- and how do they deal with the contradictions of this concept.

Question 1079 What are the contradictions of the concept "value of labor"? [2012fa](#), [2011fa](#).

537:3/oo Classical political economy borrowed the category ‘price of labor’ from everyday life without further criticism, and then afterwards asked the question, how is this price determined?

↑ Classical economists did not see the logical impossibility that labor, the source of value, cannot have value itself. They went at it in a standard and ultimately naïve fashion. Their first impulse was to explain the price of labor by demand and supply, ↓ but they quickly realize that this does not take them far:

It soon recognized that changes in the relation between demand and supply explained, with regard to the price of labor, as is true with regard to any other commodity, nothing except the changes in the prices, i.e. the oscillations of the market price above or below a certain mean. If demand and supply are in balance, the oscillation of prices ceases (as long as all other circumstances remain the same). At the same time, demand and supply cease to be forces which explain anything.

↑ Interesting critique of the demand/supply paradigm.

Question 1080 Marx says: *if demand and supply coincide then they are unable to explain prices. What would a mainstream economist say about this?* 2011fa, 2010fa, 2008fa.

↓ The failure of their attempts to explain the price of labor by market forces led them to the concept of the natural price of labor, and then they shifted focus: they realized that it was necessary to explain the natural price.

The price of labor, when demand and supply are in balance, is its natural price, determined independently of the relation of demand and supply. The natural price was thus found to be the object which actually had to be analysed.

↓ Next, Marx gives an alternative approach which does not begin with the surface *mechanisms* of demand and supply but with the empirical *data* of prices over time. It comes to the same conclusion, namely, that it is necessary to explain the natural price:

Or a longer period of oscillation in the market price was taken, for example a year, and the oscillations were found to cancel each other out, moving around an average quantity in the middle, a constant magnitude—which, of course, had to be determined otherwise than by the mutually compensating variations from it.

↑ Marx assumes that the time series of empirical prices are not random walks, but that a certain reversal to the mean is taking place. This mean is the systematic component of the time series, the natural price, which needs to be explained.

559:3/oo Die klassische politische Ökonomie entlehnte dem Alltagsleben ohne weitere Kritik die Kategorie „Preis der Arbeit“, um sich dann hinterher zu fragen, wie wird dieser Preis bestimmt?

Sie erkannte bald, daß der Wechsel im Verhältnis von Nachfrage und Angebot für den Preis der Arbeit, wie für den jeder andren Ware, nichts erklärt außer seinem Wechsel, d.h. die Schwankung der Marktpreise unter oder über eine gewisse Größe. Decken sich Nachfrage und Angebot, so hört, unter sonst gleichbleibenden Umständen, die Preisschwankung auf. Aber dann hören auch Nachfrage und Angebot auf, irgend etwas zu erklären.

Der Preis der Arbeit, wenn Nachfrage und Angebot sich decken, ist ihr vom Verhältnis der Nachfrage und Angebot unabhängig bestimmter, ihr natürlicher Preis, der so als der eigentlich zu analysierende Gegenstand gefunden ward.

Oder man nahm eine längere Periode der Schwankungen des Marktpreises, z.B. ein Jahr und fand dann, daß sich ihr Auf und Ab ausgleicht zu einer mittlern Durchschnittsgröße, einer konstanten Größe. Sie mußte natürlich anders bestimmt werden als die sich kompensierenden Abweichungen von ihr selbst.

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This natural price is not determined by circulation, rather it is determined by something *inside* the commodity, i.e., by the value of the commodity. So far, Marx agrees with classical economists. The disagreement lies in the exact identification of the commodity whose value governs the price of labor. Classical economists think that it is labor, while Marx thinks it is labor-power. Marx sees it as confirmation of his theory that the classical economists, despite themselves, take refuge in the value of labor-power when the concept “value of labor” leads them into contradictions. But let’s go back to Marx’s text. ↓ Since the “commodity” considered here is labor, this conclusion leads the classical economists to the impossible concept “value of labor.”

This price, overarching over the accidental market prices of labor and regulating them, this ‘necessary price’ (according to the Physiocrats) or ‘natural price’ of labor (according to Adam Smith) can only be its value expressed in money, as that of all other commodities. This is how the political economists believed they were penetrating through the accidental prices of labor to the value of labor.

Dieser über die zufälligen Marktpreise der Arbeit übergreifende und sie regulierende Preis, der „notwendige Preis“ (Physiokraten) oder „natürliche Preis“ der Arbeit (Adam Smith) kann, wie bei andren Waren, nur ihr in Geld ausgedrückter Wert sein. In dieser Art glaubte die politische Ökonomie durch die zufälligen Preise der Arbeit zu ihrem Wert vorzudringen.

At this point, Marx himself would have said “oops, since labor is the source of all value, it cannot have its own value. Something must be wrong here.” ↓ The other classical economists, by contrast, said “value is determined by cost of production, and the production cost of labor are the means of subsistence of the laborer”

As with other commodities, this value was then further determined by the cost of production. But what is the cost of production ... of the *worker*, i.e. the cost of producing or reproducing the worker himself? The political economists unconsciously substituted this question for the original one, for their search after the cost of production of labor as such led them in a circle and did not allow them to move forward.

Wie bei den andren Waren wurde dieser Wert dann weiter durch die Produktionskosten bestimmt. Aber was sind die Produktionskosten—des Arbeiters, d.h. die Kosten, um den Arbeiter selbst zu produzieren oder zu reproduzieren? Diese Frage schob sich der politischen Ökonomie bewußtlos für die ursprüngliche unter, da sie mit den Produktionskosten der Arbeit als solcher sich im Kreise drehte und nicht vom Flecke kam.

Instinctively shunning the explanation that the value of 1 hour of labor = 1 hour of labor, classical economists substitute, without being aware of it, value of labor *power* for value of labor.

Therefore what they called the ‘value of labor’ is in fact the value of labor-power, as it exists in the person of the worker, and it is as different from its function, labor, as a machine is from the operations it performs.

Was sie also Wert der Arbeit (value of labour) nennt, ist in der Tat der Wert der Arbeitskraft, die in der Persönlichkeit des Arbeiters existiert und von ihrer Funktion, der Arbeit, ebenso verschieden ist wie eine Maschine von ihren Operationen.

↑ This is the main result of this phase of the argument. ↓ Marx continues that classical Political Economy never discovered its error, and that it got entangled in unresolvable confusions and contradictions because of it:

Because they were concerned with the dif-

Beschäftigt mit dem Unterschied zwischen

ference between the market price of labor and its so-called value, with the relation of this value to the rate of profit and to the values of the commodities produced by means of labor, etc., they never discovered that the course of the analysis had led not only from the market prices of labor to its presumed value, but also led them to reduce this value of labor itself to the value of labor-power. Classical political economy's unconsciousness of this result of its own analysis and its uncritical acceptance of the categories 'value of labor', 'natural price of labor', etc. as the ultimate and adequate expression for the value relation under consideration, led it into unresolvable confusions and contradictions, as will be seen later. However to the vulgar economists, who make it a principle to worship appearances only, it offered a secure base for their shallow operations.

↑ The difficulties which classical economy had to go beneath the surface, led to a strengthening of vulgar exconomics, which never even tried to go beneath the surface.

den Marktpreisen der Arbeit und ihrem sog. Wert, mit dem Verhältnis dieses Werts zur Profitrate, zu den vermittelst der Arbeit produzierten Warenwerten usw., entdeckte man niemals, daß der Gang der Analyse nicht nur von den Marktpreisen der Arbeit zu ihrem vermeintlichen Wert, sondern dahin geführt hatte, diesen Wert der Arbeit selbst wieder aufzulösen in den Wert der Arbeitskraft. Die Bewußtlosigkeit über dies Resultat ihrer eignen Analyse, die kritiklose Annahme der Kategorien „Wert der Arbeit“, „natürlicher Preis der Arbeit“ usw. als letzter adäquater Ausdrücke des behandelten Wertverhältnisses, verwickelte, wie man später sehn wird, die klassische politische Ökonomie in unauflösbare Wirren und Widersprüche, während sie der Vulgärökonomie eine sichere Operationsbasis für ihre prinzipiell nur dem Schein huldigende Flachheit bot.

3.b. [The Transformation]

What is to be learned from this critical look at classical economics? That is necessary to make that step consciously and in detail which bourgeois political economy made unconsciously and in passing.

539:1 Let us first see how the value (and the price) of labor-power represent themselves in this transmuted form as wage of labor.

Marx starts with the value of labor *power* and derives from it the value of labor. How can the wage of one hour of *labor* be derived from the daily value of *labor-power*?

539:2 We know that the daily value of labor-power is calculated upon a certain length of the worker's life, which is associated, in turn, with a certain length of the working day.

561:1 Sehn wir nun zunächst, wie Wert und Preise der Arbeitskraft sich in ihrer verwandelten Form als Arbeitslohn darstellen.

561:2 Man weiß, daß der Tageswert der Arbeitskraft berechnet ist auf eine gewisse Lebensdauer des Arbeiters, welcher eine gewisse Länge des Arbeitstags entspricht.

Fowkes reverses the correspondence: "and that this corresponds, in turn, to a certain

length of the working day." Moore-Aveling have it right: "to which, again, corresponds a

certain length of the working day."

In chapter Six, Marx discusses how the daily wage of labor-power is derived. Briefly, the cost of living, including bringing up one's children, educational costs, etc., are prorated on a daily basis. Marx does not recapitulate this here but mentions only one aspect of this calculation which is relevant here: the overall life expectancy of the worker is needed so that

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the costs of childrearing and educational costs can be prorated. If a laborer lives longer, then part of his or her wage covering those fixed life expenses can be less. On the other hand, however, in order to achieve this life expectancy, the length (and intensity) of the working day cannot be excessive. At Marx's time many workers were literally worked to death, see chapter Ten, p. 263:1. This is why the correspondence between life expectancy and length of working day is so important for Marx's calculations.

Assume that the usual working day is 12 hours and the daily value of labor-power 3 shillings, which is the expression in money of a value embodying 6 hours of labor. If the worker receives 3 shillings, then he receives the value of his labor-power, which functions through 12 hours. If this value of a day's labor-power is now expressed as the value of a day's labor itself, we have the formula: 12 hours of labor has a value of 3 shillings.

↑ The magnitude of value of one hour of labor is therefore derived from the magnitude of value of labor-power by a simple but thoroughly unexpected formula: take the daily value of labor-power as it was derived in chapter Six, see 182:3/o, and divide it by the number of hours the laborer is working. The unexpected nature of this formula was aptly illustrated as follows by Anthony Brewer in [Bre84, p. 64]: it is as if the price of a horse was quoted at so much per leg, and then multiplied by four to find the price per horse.

This formula and its implications will be discussed in much more detail in the next chapter, , and the corresponding formula for piece wages in the chapter following the next, . The present chapter is more interested in the relationship between the wage form and its underlying essence than in the wage form itself—although Marx could not help saying something specific to one of the forms, time wage, when answering the important quantitative question.

↓ Marx concludes this part of the investigation with the remark that not only the “necessary price” of labor but also its actual price, which may deviate from the necessary price, is determined by labor-power:

The value of labor-power thus determines the value of labor, or, expressed in money, its necessary price. If, on the other hand, the price of labor-power differs from its value, then the price of labor will also differ from its so-called value.

Nimm an, der gewohnheitsmäßige Arbeitstag betrage 12 Stunden und der Tageswert der Arbeitskraft 3 sh., der Geldausdruck eines Werts, worin sich 6 Arbeitsstunden darstellen. Erhält der Arbeiter 3 sh., so erhält er den Wert seiner während 12 Stunden funktionierenden Arbeitskraft. Wird nun dieser Tageswert der Arbeitskraft als Wert der Tagesarbeit ausgedrückt, so ergibt sich die Formel: Die zwölfstündige Arbeit hat einen Wert von 3 sh.

Der Wert der Arbeitskraft bestimmt so den Wert der Arbeit oder, in Geld ausgedrückt, ihren notwendigen Preis. Weicht dagegen der Preis der Arbeitskraft von ihrem Wert ab, so ebenfalls der Preis der Arbeit von ihrem sog. Wert.

3.c. [Implications of the Transformation]

Since the value of labor is derived from the value of labor-power, one cannot expect that the value *of* one hour of labor is the same as the value *created by* one hour of labor. And given the relationship between capitalist and worker, we know which of these two quantities is smaller:

539:3 Since the value of labor is only an incongruous expression for the value of labor-power, it follows by itself that the value of labor must always be less than

561:3/o Da der Wert der Arbeit nur ein irrationeller Ausdruck für den Wert der Arbeitskraft, ergibt sich von selbst, daß der Wert der Arbeit stets kleiner sein muß als

its value-product, for the capitalist always makes labor-power work longer than is necessary for the reproduction of its own value. In the above example, the value of labor-power functioning for 12 hours is 72 cents, which requires 6 hours for its reproduction. The value which the labor-power produces is however \$1.44, because it does function during the 12 hours, and its value-product depends not on its own value but on the length of time it is in action.

What is translated here with “incongruous” is in German “*irrationell*,” which should be distinguished from the German “*irrational*.” It is not something that cannot be explained, or that does not follow reason, but it is something whose explanation is so un-obvious and misleading that those engaged in those surface relations are prevented from understanding what is really going on. It fosters illusions instead of rational behavior.

Question 1082 Marx says in 679:3/o: Since the “value of labor” is only an incongruous expression of the value of labor-power it follows “by itself” that the value of labor must be smaller than its value-product. How does this follow? [2007fa](#), [2003fa](#), [2002fa](#).

Exam Question 1083 How is the “value of labor” derived from the value of labor-power? Compare the “value of labor” thus obtained with the value of the product of the labor. [2013fa](#), [2012fa](#), [2011fa](#), [2009fa](#), [2008fa](#), [2007fa](#), [2005fa](#), [2004fa](#), [2002fa](#), [1997ut](#), [1996ut](#), [1996sp](#), [1995WI](#).

This is the rational explanation of something seemingly absurd:

Thus we reach a result which seems at first sight absurd: labor which creates a value of \$1.44 possesses a value of 72 cents.²⁷

²⁷ Cf. *Contribution to the Critique of Political Economy*, [mecw29]302:0, where I state that, in my analysis of capital, I shall solve the following problem: ‘how does production on the basis of exchange-value solely determined by labor-time lead to the result that the exchange-value of labor is less than the exchange-value of its product?’

Now an important implication for ideology:

539:4/o We see, further: the value of 72 cents, in which the paid portion of the working day, i.e. 6 hours of labor, represents itself, appears as the value or price of the whole working day of 12 hours, which thus includes 6 hours which were not paid for. The wage-form thus extinguishes every trace of the division of working day into necessary labor and surplus labor, into paid

ihr Wertprodukt, denn der Kapitalist läßt die Arbeitskraft stets länger funktionieren, als zur Reproduktion ihres eignen Werts nötig ist. Im obigen Beispiel ist der Wert der während 12 Stunden funktionierenden Arbeitskraft 3 sh., ein Wert, zu dessen Reproduktion sie 6 Stunden braucht. Ihr Wertprodukt ist dagegen 6 sh., weil sie in der Tat während 12 Stunden funktioniert, und ihr Wertprodukt nicht von ihrem eignen Werte, sondern von der Zeitdauer ihrer Funktion abhängt.

Man erhält so das auf den ersten Blick abgeschmackte Resultat, daß Arbeit, die einen Wert von 6 sh. schafft, einen Wert von 3 sh. besitzt.²⁷

²⁷ Vgl. „Zur Kritik der politischen Oekonomie“, [mecw29]302:0, wo ich ankündige, daß bei Betrachtung des Kapitals das Problem gelöst werden soll: „Wie führt Produktion auf Basis des durch bloße Arbeitszeit bestimmten Tauscherts zum Resultat, daß der Tauschwert der Arbeit kleiner ist als der Tauschwert ihres Produkts?“

562:1 Man sieht ferner: Der Wert von 3 sh., worin sich der bezahlte Teil des Arbeitstags, d.h. sechsstündige Arbeit darstellt, erscheint als Wert oder Preis des Gesamtarbeitstags von 12 Stunden, welcher 6 unbezahlte Stunden enthält. Die Form des Arbeitslohns löscht also jede Spur der Teilung des Arbeitstags in notwendige Arbeit und Mehrarbeit, in bezahlte und unbezahlte Ar-

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labor and unpaid labor. All labor appears as paid labor.

↑ In capitalism, all labor seems to be fully paid. ↓ Marx contrasts this with *corvée* labor (in which paid and unpaid labor are clearly distinguished) and slave labor (in which all labor seems to be unpaid).

Under the *corvée* system it is different. There the labor of the serf for himself, and his compulsory labor for the lord of the land, are demarcated very clearly both in space and time. In slave labor, even the part of the working day in which the slave is only replacing the value of his own means of subsistence, in which he therefore actually works for himself alone, appears as labor for his master. All his labor appears as unpaid labour.²⁸ In wage-labor, on the contrary, even surplus-labor, or unpaid labor, appears as paid. In the one case, the property-relation conceals the slave's labor for himself; in the other case the money-relation conceals the uncompensated labor of the wage-laborer.

↓ Marx adduces the *Morning Star* as evidence that slave labor seems to be entirely unpaid.

²⁸ The *Morning Star*, a London free-trade organ which is so naïve as to be positively foolish, protested again and again during the American Civil War, with all the moral indignation of which man is capable, that the Negroes in the 'Confederate States' worked absolutely for nothing. It should have compared the daily cost of a Negro in the southern states with that of a free worker in the East End of London.

↓ But let's come back to capitalism, in which all labor seems to be paid.

540:1 We may therefore understand the decisive importance of the transformation of the value and price of labor-power into the form of wages, or into the value and price of labor itself.

↑ Marx calls this "decisively important" because capitalism could not function if exploitation was clearly visible to all. ↓ Marx does not say this here, but instead makes the following famous and very strong statement:

This form of appearance, which renders the real relation invisible and indeed presents to the eye the precise opposite of that relation, is the basis of all notions of justice of both laborer and capitalist, of all the mystifications of the capitalist mode of production, of all its illusions as to liberty, of all the apolo-

beit aus. Alle Arbeit erscheint als bezahlte Arbeit.

Bei der Fronarbeit unterscheiden sich räumlich und zeitlich, handgreiflich sinnlich, die Arbeit des Fröners für sich selbst und seine Zwangsarbeit für den Grundherrn. Bei der Sklavenarbeit erscheint selbst der Teil des Arbeitstags, worin der Sklave nur den Wert seiner eignen Lebensmittel ersetzt, den er in der Tat also für sich selbst arbeitet, als Arbeit für seinen Meister. Alle seine Arbeit erscheint als unbezahlte Arbeit.²⁸ Bei der Lohnarbeit erscheint umgekehrt selbst die Mehrarbeit oder unbezahlte Arbeit als bezahlt. Dort verbirgt das Eigentumsverhältnis das Fürsichselbstarbeiten des Sklaven, hier das Geldverhältnis das Umsonstarbeiten des Lohnarbeiters.

²⁸ Der „Morning Star“, ein bis zur Albernheit naives Londoner Freihandelsorgan, beteuerte während des Amerikanischen Bürgerkriegs wieder und wieder mit aller menschenmöglichen moralischen Entrüstung, daß die Neger in den „Confederate States“ ganz umsonst arbeiteten. Es hätte gefälligst die Tageskosten eines solchen Negers mit denen des freien Arbeiters im East End von London z.B. vergleichen sollen.

562:2 Man begreift daher die entscheidende Wichtigkeit der Verwandlung von Wert und Preis der Arbeitskraft in die Form des Arbeitslohns oder in Wert und Preis der Arbeit selbst.

Auf dieser Erscheinungsform, die das wirkliche Verhältnis unsichtbar macht und grade sein Gegenteil zeigt, beruhen alle Rechtsvorstellungen des Arbeiters wie des Kapitalisten, alle Mystifikationen der kapitalistische Produktionsweise, alle ihre Freiheitsillusionen, alle apologetischen Flausen der Vulgär-

getic shifts of the vulgar economists.

ökonomie.

Question 1086 *Why is the transformation of the value (resp. price) of labor-power into the value (resp. price) of labor the basis of “all mystifications of the capitalistic mode of production”?* 2005fa, 2004fa, 2003fa, 1999SP, 1996sp, 1995WI.

Question 1087 *Would capitalism be possible if exploitation was not hidden but clearly visible to everybody involved?* 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007fa, 2007SP.

4. [Necessity of the Wage Form]

Question 1091 *In section 1.3 of chapter One, the defects of the forms of value always led to better forms. The wage form is certainly defective. Why has it not been replaced by a better form?* 2011fa, 2005fa, 2004fa, 2003fa.

540:2 History has taken a long time to decipher the mystery of the wage form. By contrast, nothing is easier to understand than the necessity of this form of appearance, the reasons why it persists.

562:3 Braucht die Weltgeschichte viele Zeit, um hinter das Geheimnis des Arbeitslohns zu kommen, so ist dagegen nichts leichter zu verstehen als die Notwendigkeit, die *raisons d’être* dieser Erscheinungsform.

My translation “reasons why it persists” for *raisons d’être* is a

free, interpretive translation which goes beyond Marx’s text.

Marx distinguishes here between two questions: (a) what is the content behind the wage form, and (b) why does this content take the form that it does. Question (a) is difficult; Marx was the first to see that the content behind the wage form is not the value of labor but the value of labor-power.

Question (b) can be reformulated as: why is the value of labor-power not treated by the economic agents as that what it is, but in the mystified form of “value of labor”? If something has a form which does not fit, then one should expect that this mis-alignment between form and content will interfere with practical activity and over time will be fixed. Obviously, such a spontaneous realignment does not occur. There must be very specific reasons that keep form and content out of sync. This is the subject of the present subsection: to identify those specific reasons which prevent the value of labor-power from showing its real face, i.e., which prevent the wage form from reverting to a form directly reflecting the underlying relation of production, namely, that the commodity bought and sold on the market is labor-power and not labor itself.

Marx is about to enumerate several reasons, but before he even begins, he remarks in the passage we just read that “nothing is easier to understand” than the necessity of the wage form. This necessity can be argued on two levels:

- Practical reasons. Capitalists would not get any labor out of their workers otherwise.
- Preservation of the system. Since the content behind the wage bargain is the exploitation of the worker, this content cannot be expressed openly on the surface, because capitalism depends on exploitation remaining hidden.

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As Bhaskar notes in [Bha89, pp. 9, 109], the situation of the wage form is exactly the opposite of that of the value form discussed in the section about the Fetish-Like Character of the Commodity, 91:1/o etc. Classical political economy *did* decipher the content behind the value form, but prior to Marx nobody had asked why that content took this form. Regarding the wage form, classical political economy did *not* decipher it, i.e., it fails to pinpoint the precise character of the commodity which the laborer sells to the capitalist, but it is easy to see why the transaction between laborer and capitalist must take this form.

Question 1092 *Before spending two long paragraphs on the explanation why the value of labor-power persists in its mystified wage-form instead of reverting to a form more appropriate to the inner nature of labor-power, Marx says that “nothing is easier to understand” than the answer to this question. Doesn’t Marx discredit his own explanations by saying that the issue at hand is really trivial? 2005fa, 2003fa.*

Marx has shown the benefits of the wage form for capitalism. Capitalism needs a wage form in order to coerce the laborer to do the work, and the wage form has the additional side effect of concealing exploitation. This conclusion does not relieve us from the substantive scientific work investigating those mechanisms which prevent the unmasking of the wage form itself. This is what Marx will do next.

He is going to enumerate specific reasons which prevent the transaction between capitalist and laborer from establishing a form for itself that is resonant with its true content. This cannot happen because to both capitalist and worker, the transaction they are engaged in looks exactly like the any other sale and purchase: labor is exchanged against money. The remainder of this paragraph looks at the exchange between capitalist and worker from its qualitative side, and the next paragraph looks at it from its quantitative side.

540:3 The exchange between capital and labor presents itself to the perceptions of the transactors at first glance in exactly the same way as the sale and purchase of any other commodity. The buyer gives a certain sum of money, the seller some article other than money.

563:1 Der Austausch zwischen Kapital und Arbeit stellt sich der Wahrnehmung zunächst ganz in derselben Art dar wie der Kauf und Verkauf aller andren Waren. Der Käufer gibt eine gewisse Geldsumme, der Verkäufer einen von Geld verschiedenen Artikel.

The claim that the exchange of labor is, on the surface, indistinguishable from the exchange of any other commodity, is backed up by five supporting arguments. The first two of these address possible objections.

A legal point of view recognizes here at most a bodily difference, expressed in the legally equivalent formulae: “I give, that you may give; I give, that you may do; I do, that you may give; I do, that you may do.”

Das Rechtsbewußtsein erkennt hier höchstens einen stofflichen Unterschied, der sich ausdrückt in den rechtlich äquivalenten Formeln: Do ut des, do ut facias, facio ut des, und facio ut facias.

↑ (1a) One might object that there is indeed a difference: the usual procedure is “I give that you may give”; while this here is “I give that you may do.” Marx’s answer to this is embedded in the formulation above: this is only a *bodily* difference in the use-values exchanged. The formula “I give that you may give” is legally *equivalent* with “I give that you may do.”

↓ (1b) Although Marx argued earlier in this chapter at length that labor cannot have value, this fact is not obvious. Even its corollary which Marx had earlier called so absurd that it cannot even be pronounced as a law, namely, that the value of 1 hour of labor would have to

be 1/2 hour of labor, could be explained by the difference between use-value and exchange-value:

540:4/o Further. Since exchange-value and use-value are by their nature incommensurable magnitudes, the expressions ‘value of labor’ and ‘price of labor’ do not seem more incongruous than the expressions ‘value of cotton’ and ‘price of cotton’.

563:2 Ferner: Da Tauschwert und Gebrauchswert an und für sich incommensurable Größen sind, so scheint der Ausdruck: „Wert der Arbeit“, „Preis der Arbeit“ nicht irrationeller als der Ausdruck „Wert der Baumwolle“, „Preis der Baumwolle“.

(1c) Marx’s third supporting argument is no longer the response to a possible objection, but Marx brings the following positive argument which seems to support the notion that the commodity traded between worker and capitalist is labor:

Moreover, the worker is paid after he has delivered his labor. In its function as a means of payment, money realizes, after the fact, the value or price of the article delivered—i.e. in this particular case, the value or price of the labor supplied.

Es kommt hinzu, daß der Arbeiter gezahlt wird, nachdem er seine Arbeit geliefert hat. In seiner Funktion als Zahlungsmittel realisiert das Geld aber nachträglich den Wert oder Preis des gelieferten Artikels, also im gegebenen Fall den Wert oder Preis der gelieferten Arbeit.

Although most other commodities are paid after delivery to the buyer, the wages are paid after the capitalist has *consumed* the labor-power. The rationale for this was already explained in chapter Six, 184:1/o. The consumption of the commodity by the capitalist is an exertion on the part of the worker, therefore the form in which it is sold necessarily implies coercion to ensure that the labor-power is indeed made available to the capitalist to the fullest possible extent. In chapter Six, Marx did not make it clear enough that coercion is involved, but in my view it is exactly this coercive component that has the side effect of mystifying the true character of the commodity traded. Since the coercion focuses on the performance of labor by the worker, the impression is created that the commodity which the capitalist receives from the worker is indeed the commodity “labor.”

(1d) Fourth point: in most cases, the use-value which the employer draws from the worker’s labor-power is not the potential labor, but the actual labor. There are a few exceptions: firemen, repairmen, computer systems administrators are paid just to be present and able to intervene in case something happens. Here one can argue that it is their potential labor that is useful to the capitalist even if it is not actualized. But most other workers are only useful for the capitalist if they actually do perform the work. This, again, bolsters the illusion that labor is being sold, not labor-power.

Finally, the “use-value” supplied by the worker to the capitalist is not in fact his labor-power but its function, a specific form of useful labor, such as tailoring, cobbling, spinning, etc.

Endlich ist der „Gebrauchswert“, den der Arbeiter dem Kapitalisten liefert, in der Tat nicht seine Arbeitskraft, sondern ihre Funktion, eine bestimmte nützliche Arbeit, Schneiderarbeit, Schusterarbeit, Spinnarbeit usw.

(1e) But if one makes this argument then immediately a further clarification becomes necessary. The capitalist does not employ shoe-makers because he cares about shoes. He employs shoe-makers because they create more value than the wages they receive. But the shoe-makers themselves are not aware of the value-creating ability of their labor. Therefore they mis-interpret the motivation why the capitalist buys their labor-power, and therefore they do not see the true character of the transaction they are involved in:

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That this same labor is, on the other hand, the universal value-creating element, and thus possesses a property by virtue of which it differs from all other commodities, is something which falls outside the scope of ordinary consciousness.

Daß dieselbe Arbeit nach einer andren Seite hin allgemeines wertbildendes Element ist, eine Eigenschaft, wodurch sie sich von allen andren Waren unterscheidet, fällt außerhalb des Bereichs des gewöhnlichen Bewußtseins.

In the next paragraph, Marx looks at the quantitative side of the wage bargain. As in chapter Twelve, p. 321:3/oo, Marx assumes here that one hour of labor produces a value of 12 cents.

First Marx looks at it from point of view of the laborer. The magnitude of the wages themselves does not come from a value intrinsic in the labor, but it is borrowed from the values of the workers' means of subsistence. Will this "remote control" of the magnitude of value not alert the transactors about the special character of the commodity that is traded?

541:1 Let us put ourselves in the place of the worker who receives for 12 hours of labor the value-product of, say, 6 hours of labor, namely 72 cents. For him, in fact, his 12 hours of labor is the means of buying the 72 cents. The value of his labor-power may vary, with the value of his usual means of subsistence, from 72 to 96 cents, or from 72 to 48 cents; or, if the value of labor-power remains constant, its price may rise to 96 cents or fall to 48 cents as a result of changes in the relation of demand and supply. He always gives 12 hours of labor. Every change in the amount of the equivalent that he receives therefore necessarily appears to him as a change in the value or price of his 12 hours of labor.

563:3 Stellen wir uns auf den Standpunkt des Arbeiters, der für zwölfstündige Arbeit z.B. das Wertprodukt sechsstündiger Arbeit erhält, sage 3 sh., so ist für ihn in der Tat seine zwölfstündige Arbeit das Kaufmittel der 3 sh. Der Wert seiner Arbeitskraft mag variieren mit dem Wert seiner gewohnheitsmäßigen Lebensmittel von 3 auf 4 sh. oder von 3 auf 2 sh., oder bei gleichbleibendem Wert seiner Arbeitskraft mag ihr Preis, infolge wechselnden Verhältnisses von Nachfrage und Angebot, auf 4 sh. steigen oder auf 2 sh. fallen, er gibt stets 12 Arbeitsstunden. Jeder Wechsel in der Größe des Äquivalents, das er erhält, erscheint ihm daher notwendig als Wechsel im Wert oder Preis seiner 12 Arbeitsstunden.

↑ If productivity rises, then the value of labor-power falls and the worker has to work less per day to reproduce the value of his or her means of subsistence. Nevertheless, the actual work day is unchanged, since the capitalist simply makes the surplus-labor longer. Therefore the worker does not see the effects which productivity changes have on his commodity, and therefore he is led to think he is selling labor, and that any changes in the buying power of his wages are due to a change in the value of labor. ↓ Adam Smith tries to get away from these surface illusions by his hypothesis that the value of labor is a constant and that all changes in the buying-power of the wage are due to productivity differences.

This circumstance misled Adam Smith, who treated the working day as a constant quantity,²⁹ into the opposite assertion that the value of labor is constant, although the value of the means of subsistence may vary, and the same working day, therefore, may represent more or less money for the worker.

Dieser Umstand verleitet umgekehrt Adam Smith, der den Arbeitstag als eine konstante Größe behandelt,²⁹ zur Behauptung, der Wert der Arbeit sei konstant, obgleich der Wert der Lebensmittel wechsle und derselbe Arbeitstag sich daher in mehr oder weniger Geld für den Arbeiter darstelle.

Smith never says explicitly that he considers the length of the working day as constant. But whenever he talks about the quantity of labor he only measures labor in days and almost

never mentions the length or intensity of the labor during the day. The only exception is his discussion of piece wages, which cause the workers to spend too much labor per day:

²⁹ Adam Smith only incidentally alludes to the variation of the working day, when he is dealing with piece-wages.

²⁹ A. Smith spielt nur zufällig auf die Variation des Arbeitstags an bei Gelegenheit des Stücklohns.

Term Paper Topic 1094 *The Vintage edition of Capital [Mar76, p. 681] has here the following reference: Wealth of Nations, Bk I, Ch. 8, 'Of the Wages of Labor'. I read this chapter and did not find the place where Smith said that the value of labor was constant although the value of the means of subsistence may vary. If you can identify the place or places in Smith which Marx refers to here (which may or may not be in Ch. 8), I would count this piece of research as a term paper. 2009fa, 2008SP.*

(2b) One should expect the capitalist to be better aware than the worker that the commodity traded between him and the worker is labor-power, since he is trying every day to squeeze as much labor as possible from the worker.

541:2 Let us consider, on the other hand, the capitalist. He wishes to receive as much labor as possible for as little money as possible. In practice, therefore, the only thing that interests him is the difference between the price of labor-power and the value which its function creates.

564:1 Nehmen wir andererseits den Kapitalisten, so will er zwar möglichst viel Arbeit für möglichst wenig Geld erhalten. Praktisch interessiert ihn daher nur die Differenz zwischen dem Preis der Arbeitskraft und dem Wert, den ihre Funktion schafft.

He still does not draw the right conclusion from his own practice. He does not see labor-power as a special case, since he is trying to get maximum benefit for lowest cost from all commodities he is buying.

But he seeks to buy all commodities as cheaply as possible, and he explains his profit to himself as the result of mere sharp practice, of buying under the value and selling over it.

Aber er sucht alle Ware möglichst wohlfeil zu kaufen und erklärt sich überall seinen Profit aus der einfachen Prellerei, dem Kauf unter und dem Verkauf über dem Wert.

He is not aware that profits would be competed away after a brief adjustment period, if his interpretation of reality were correct.

Hence he never arrives at the insight that if such a thing as the value of labor really existed, and he really paid this value, no capital would exist, and his money would never be transformed into capital.

Er kommt daher nicht zur Einsicht, daß, wenn so ein Ding wie Wert der Arbeit wirklich existierte, und er diesen Wert wirklich zahlte, kein Kapital existieren, sein Geld sich nicht in Kapital verwandeln würde.

Now (3), the movement of wages over time:

541:3/o Moreover, the actual movement of wages presents phenomena which seem to prove that it is not the value of labor-power which is paid, but the value of its function, of labor itself. We may reduce these phenomena to two great classes.

564:2 Zudem zeigt die wirkliche Bewegung des Arbeitslohns Phänomene, die zu beweisen scheinen, daß nicht der Wert der Arbeitskraft bezahlt wird sondern der Wert ihrer Funktion, der Arbeit selbst. Diese Phänomene können wir auf zwei große Klassen zurückführen.

Together with the classification of these phenomena Marx gives very abbreviated arguments why they do not really prove that wages are determined by labor:

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(a) Changes in wages owing to changes in the length of the working day. One might as well conclude that it is not the value of a machine which is paid, but that of the operations which it performs, because it costs more to hire a machine for a week than for a day.

The fact that a longer workday costs more than a shorter workday is not an argument that the capitalist has bought the labor instead of the labor-power. A longer workday costs more because it causes more wear to the worker.

(b) Individual differences between the wages of different workers who perform the same function. These individual differences also exist in the system of slavery, but there they do not give rise to any illusions, for labor-power is in that case itself sold frankly and openly, without any embellishment. Only, in the slave system, the advantage of a labor-power above the average, and the disadvantage of a labor-power below the average, affects the slave-owner; whereas in the system of wage-labor it affects the worker himself, because his labor-power is, in the latter case, sold by himself, and in the former, by a third person.

Individual labor-powers differ also in slavery. This does not generate any illusions because the slave owner is the one who benefits from a good labor-power, not the slave himself or herself.

Question 1097 *Productivity bargaining, i.e., union contracts which tie wage increases to increases in productivity, did not exist at Marx's time. Should it be included as an additional piece of evidence falsely suggesting that wages are paid for labor? 2005fa, 2001fa, 1999SP, 1998WI.*

(4) Finally, we should not be surprised if we encounter a situation where the form does not spontaneously divulge its content. This is often the case; this is why science is needed:

542:1 For the rest, what is true of all forms of appearance and their hidden background is also true of the form of appearance 'value and price of labor', or 'wages', as contrasted with the essential relation manifested in it, namely the value and price of labor-power. The forms of appearance are reproduced directly and spontaneously, as current and usual modes of thought; the essential relation must first be discovered by science.

Erstens: Wechsel des Arbeitslohns mit wechselnder Länge des Arbeitstags. Man könnte ebensowohl schließen, daß nicht der Wert der Maschine, sondern der ihrer Operation bezahlt wird, weil es mehr kostet, eine Maschine für eine Woche als für einen Tag zu dingen.

Zweitens: Der individuelle Unterschied in den Arbeitslöhnen verschiedener Arbeiter, welche dieselbe Funktion verrichten. Diesen individuellen Unterschied findet man, aber ohne Anlaß zu Illusionen, auch im System der Sklaverei, wo frank und frei, ohne Schnörkel, die Arbeitskraft selbst verkauft wird. Nur fällt der Vorteil einer Arbeitskraft die über dem Durchschnitt, oder der Nachteil einer Arbeitskraft, die unter dem Durchschnitt steht, im Sklavensystem dem Sklaveneigner zu, im System der Lohnarbeit dem Arbeiter selbst, weil seine Arbeitskraft in dem einen Fall von ihm selbst, in dem andern von einer dritten Person verkauft wird.

564:3 Übrigens gilt von der Erscheinungs-

form, "Wert und Preis der Arbeit" oder „Arbeitslohn“, im Unterschied zum wesentlichen Verhältnis, welches erscheint, dem Wert und Preis der Arbeitskraft, dasselbe, was von allen Erscheinungsformen und ihrem verborgnen Hintergrund. Die ersteren reproduzieren sich unmittelbar spontan, als gang und gäbe Denkformen, der andre muß durch die Wissenschaft erst entdeckt werden.

4. [Necessity of Wage Form]

Indeed there is a scientific discipline which looks at the wage form from a scientific point of view, namely, political economy. What can it tell us about the wage form? Although it cannot help stumbling here and there upon the real connections, it is unable to consciously formulate it:

Classical political economy stumbles approximately onto the true state of affairs, but without consciously formulating it.

Die klassische politische Ökonomie stößt annähernd auf den wahren Sachverhalt, ohne ihn jedoch bewußt zu formulieren.

The obstacle here are the class relations.

It is unable to do this as long as it stays within its bourgeois skin.

Sie kann das nicht, solange sie in ihrer bürgerlichen Haut steckt.

Again Marx hints here that the persistence of the wage form, the inability of the laborer to see its true content, is due to the exercise of class power.

Question 1098 *Is the transformation of the value of labor-power into the value of labor real, or does it take place only in the minds of those who sell and buy labor-power?* 2011fa, 2008fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP, 1998WI, 1997WI, 1996sp, 1995WI.

20. Time Wages

Although the wealth in capitalism takes the form of commodities, see the first sentence [45:1](#) in chapter One, Marx has shown that the participants in one of the central market transactions of the system, the hiring of labor by the capitalists, are not aware of which commodity exactly they are trading. Wage-laborer and capitalists *think* they are trading labor, but in reality they are trading labor-power. On the surface of the economy, the categories “price of labor” and “value of labor” do exist, but Marx argues that they are not the price and value of *labor* but the transmuted form of the price and value of *labor-power*.

The price of labor is not determined by the value of labor—there is no such thing as the value of labor—but it is derived in a roundabout manner by the value of labor-power and by the length of the workday. Chapter Nineteen established a connection between the price of labor on the surface and the underlying relations of production. It showed that the worker’s wage or the “price of labor” is the transformed form of the price of labor-power.

Question 1101 *Why a separate chapter about the time wage? Wasn’t the time wage already discussed in chapter Nineteen?* [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#).

But knowing the essence behind the wage form does not yet fully define the shapes which this form can assume. Chapters Twenty and Twenty-One discuss its main shapes: time wage and piece wage. The main result of this investigation of surface forms is that both forms have built-in tendencies to *extend* the length of the workday, and the piece wage has also the tendency to *intensify* labor. Marx also stresses that these surface forms try to make themselves independent of the underlying mechanisms which determine them. These chapters show that important economic laws not only originate in the sphere of production but also on the surface. ↓ Indeed, the very first sentence criticizes mainstream economics for not paying enough attention to the surface forms:

[542:2](#) Wages of labor themselves take many forms. This is not apparent from the ordinary economic treatises which, in their crude obsession with substance, neglect all differences of form.

[565:1](#) Der Arbeitslohn nimmt selbst wieder sehr mannigfaltige Formen an, ein Umstand, nicht erkennbar aus den ökonomischen Kompendien, die in ihrer brutalen Interessiertheit für den Stoff jeden Formunterschied vernachlässigen.

↑ Although the wage of labor is a form *of* something (namely, of the value of labor-power), this form itself can take different shapes. Mainstream economists do not look at these differences; they only want to know what lies underneath these forms, without exploring how these forms mediate that what lies underneath them, and what other effects these forms may have. Marx gave similar criticisms already in the section about the fetish-like character of the commodity, [91:1/o](#), and in footnote 89 to paragraph [374:5/o](#) in the Machinery chapter.

Question 1102 *What does one miss if one does not look at the form itself but only at that of which it is the form?* [2012fa](#), [2010fa](#), [2009fa](#).

1. [Quantitative Determination of Time Wages and Value of Labor]

An exposition of all these forms however belongs into the special study of wage labor, therefore not into this work. Nevertheless, the two prevailing fundamental forms must be briefly developed here.

Eine Darstellung aller dieser Formen gehört jedoch in die spezielle Lehre von der Lohnarbeit, also nicht in dieses Werk. Dagegen sind die zwei herrschenden Grundformen hier kurz zu entwickeln.

↑ This excursion into the territory of the book on wage-labor is necessary because some of the results of the present investigation of the wage forms, namely, that these two forms help to lengthen the workday and lower the price of labor, will become relevant in the accumulation chapter.

↓ Marx discusses time wages first, for the following reason:

543:2 The sale of labor-power, as will be remembered, always takes place for specific periods of time. The transmuted form which the daily value, weekly value, etc. of labor-power immediately assumes is therefore that of time wages, hence daily etc. wages.

565:2 Der Verkauf der Arbeitskraft findet, wie man sich erinnert, stets für bestimmte Zeitperioden statt. Die verwandelte Form, worin der Tageswert, Wochenwert usw. der Arbeitskraft sich unmittelbar darstellt, ist daher die des „Zeitlohns“, also Tageslohn usw.

↑ Wages are the payment received by the seller of *labor-power*, not labor. We saw in chapter Six, 178:1, that it is an essential characteristic of the commodity labor-power that it can only be sold for limited periods of time, because otherwise the system would degenerate into slavery. Chapter Ten also showed that the length of the working day must be regulated. From this follows that, whatever the form of the wage, it must always, directly or indirectly, contain a measurement of the time for which the labor-power is hired out. In time wages, this measurement is made directly, and in piece wages, indirectly. The word “time wages” means here that wages are paid by the day, week, fortnight, etc. Marx does not mean hourly wages; he will introduce the hourly wage later as the “price of labor.” Historically, daily wages for a length of labor determined by custom (sunup to sundown etc.) came first, and hourly wages came only later.

Exam Question 1104 *Wages have two main forms: time wages and piece wages. Why does Marx discuss time wages first?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007SP.

Question 1105 *At the beginning of the Time Wage Chapter one might expect an argument of the sort: Wages are paid for labor, and labor is measured in time, therefore we will discuss time-wages first. Instead of this argument, Marx in 683:2 brings a different transition from labor-power to time wages. How does he argue, and what, if anything, is wrong with the argument outlined here?* 2013fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007SP.

1. [Quantitative Determination of Time Wages and Value of Labor]

The next paragraph is a reference to chapter Seventeen, which interrupts the argument a little. (In the French edition this paragraph is left out.)

543:3 The first thing that should be noted here is that the laws set forth in chapter Seventeen, on the changes in the relative mag-

565:3 Es ist nun zunächst zu bemerken, daß die im fünfzehnten Kapitel dargestellten Gesetze über den Größenwechsel von Preis

20. Time Wages

nitudes of price of labor-power and surplus-value, can be transformed, by a simple alteration in their form, into laws of wages. Similarly, the difference between the exchange-value of labor-power and the sum of means of subsistence into which this value is converted now appears as the distinction between nominal and real wages. It would be useless to repeat here, when dealing with the form of appearance, what we have already worked out in relation to the essential form.

↑ Nominal and real wages have not yet been formally introduced; that will be done in the next paragraph. Interesting differentiation between form of appearance and essential form.

We shall therefore limit ourselves to a few points which characterize time-wages.

der Arbeitskraft und Mehrwert sich durch einfache Formveränderung in Gesetze des Arbeitslohns verwandeln. Ebenso erscheint der Unterschied zwischen dem Tauschwert der Arbeitskraft und der Masse der Lebensmittel, worin sich dieser Wert umsetzt, jetzt als Unterschied von nominellem und reellem Arbeitslohn. Es wäre nutzlos, in der Erscheinungsform zu wiederholen, was in der wesentlichen Form bereits entwickelt.

Wir beschränken uns daher auf wenige, den Zeitlohn charakterisierende Punkte.

↓ Every economist knows that there is not just one but several different quantitative measures of wages. Marx's brief discussion of quantity in 45:3/o has left this possibility open. Marx introduces "nominal wages" first:

The sum of money³⁰ which the worker receives for his daily or weekly labor forms the amount of his nominal wages, or of his wages estimated in value.

565:4/o Die Geldsumme³⁰, die der Arbeiter für seine Tagesarbeit, Wochenarbeit usw. erhält, bildet den Betrag seines nominellen oder dem Wert nach geschätzten Arbeitslohns.

³⁰ Here we always assume that the value of money itself remains constant.

³⁰ Der Geldwert selbst wird hier immer als konstant vorausgesetzt.

↑ The constancy of the value of money is not an innocuous assumption. It money has a constant value, technical progress causes prices to fall, and relative surplus-value can only increase if wages fall as well. This is not a realistic assumption for the functioning of capitalism, since a gradual fall in the value of gold, mirroring the fall in the value of everything else, due to the general rise in productivity, allows prices and wages to remain constant even if productivity rises. See the last sentence in 107:1/o, and then 108:4/o. Furthermore, in today's post-gold-standard time, Keynes's "money illusion" plays an important role for the movement of wages, whenever there is secular inflation. The consideration of all these mechanisms is ruled out by the present assumption of a constant monetary value.

The empirics which Marx refers to in the background is therefore not the actual empirical experience, but this experience filtered through a process of abstraction. Those familiar with empirical experience of actual capitalism can easily extrapolate what things would look like if the value of gold was constant, and this is the experience Marx is referring to.

Question 1106 *Besides the constancy of the value of money, what other abstractions of the raw empirics is Marx using in Capital?* 2012fa.

↓ There are two conflicting ways to measure the quantity of nominal wages:

But it is clear that according to the length of the working day, that is, according to the amount of actual labor supplied every day, the same daily or weekly wage may represent very different prices of labor, i.e. very

Es ist aber klar, daß je nach der Länge des Arbeitstags, also je nach der täglich von ihm gelieferten Quantität Arbeit, derselbe Tageslohn, Wochenlohn usw. einen sehr verschiedenen Preis der Arbeit, d.h. sehr ver-

1. [Quantitative Determination of Time Wages and Value of Labor]

different sums of money for the same quantity of labor.³¹ We must, therefore, in considering time-wages, again distinguish between the sum total of the daily or weekly wages, etc., and the price of labor.

³¹ ‘The price of labor is the sum paid for a given quantity of labor’ [Wes26, p. 67]. West is the author of an epoch-making work in the history of political economy, published anonymously, [[We15].

The price of labor is relevant for two reasons. (1) it is the surface expression of the price of the most important commodity, namely, labor-power, and (2) it determines the rate of surplus-value (more about this in chapter Nine, 223:2/o). The distinction between the daily wage and the hourly price of labor has practical relevance because the capitalist is interested in the price of labor, while the worker depends on the daily wage for his survival. ↓ After distinguishing the price of labor from the daily wage, Marx looks now at their connection:

How then can we find this price, i.e. the money-value of a given quantity of labor?

↑ It is probably not an accident that Marx does not use the ontological formulation “how is the price of labor determined” but the epistemological “how can we find the price of labor.” Although it is possible to calculate this price at any given time, the price of labor is not anchored in an economic law. (Epistemological formulations are rare in Marx’s writings, he usually takes pains to formulate his research steps ontologically. Another exception is 607:4.)

schiedne Geldsummen für dasselbe Quantum Arbeit darstellen kann.³¹ Man muß also bei dem Zeitlohn wieder unterscheiden zwischen Gesamtbetrag des Arbeitslohns, Taglohns, Wochenlohns usw. und Preis der Arbeit.

³¹ „Der Preis der Arbeit ist die Summe, die für eine gegebene Menge Arbeit gezahlt wird.“ [Wes26, p. 67]. West ist der Verfasser der in der Geschichte der politischen Ökonomie epochemachenden anonymen Schrift [[We15].

Wie nun diesen Preis finden, d.h. den Geldwert eines gegebenen Quantums Arbeit?

Term Paper Topic 1107 Find other places where Marx uses an epistemological rather than an ontological formulation, and discuss why.

↓ Chapter Nineteen discussed at length that the price of labor is not derived from a “value of labor” (such a thing does not exist) but it is a transformed form of the value of labor-power. Its quantity must be calculated in a somewhat roundabout manner:

The average price of labor can be obtained by dividing the average daily value of labor-power by the average number of hours in the working day. If, for instance, the daily value of labor-power is 3 shillings, which is the value-product of 6 working hours, and if the working day is 12 hours, the price of 1 working hour is 3/12 shillings, i.e. 3d.

Der durchschnittliche Preis der Arbeit ergibt sich, indem man den durchschnittlichen Tageswert der Arbeitskraft durch die Stundenzahl des durchschnittlichen Arbeitstags dividiert. Ist z.B. der Tageswert der Arbeitskraft 3 sh., das Wertprodukt von 6 Arbeitsstunden, und ist der Arbeitstag zwölfstündig, so ist der Preis einer Arbeitsstunde = (3 sh.)/12 = 3 d.

↑ This is the same example as in chapter Nineteen, 539:2. One component in this derivation of the price of labor, the value of labor-power, is well-defined and anchored in economic laws. But the other component, the length of the working-day, is “variable” or “indeterminate,” as Marx says in chapter Ten. ↓ It is a big contradiction that a magnitude which is indeterminate to such an important degree, something that is so-to-say “found” laying around, plays, on the surface of the economy, the key role of being the hourly price of labor:

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The price of the working hour thus found serves as the unit measure for the price of labor.

↓ Marx does not explicitly call it a contradiction, but he illustrates this indeterminacy by paradoxical examples:

It follows therefore that daily and weekly wages may remain the same, although the price of labor falls constantly.

Der so gefundene Preis der Arbeitsstunde dient als Einheitsmaß für den Preis der Arbeit.

566:1/o Es folgt daher, daß der Taglohn, Wochenlohn usw. derselbe bleiben kann, obgleich der Preis der Arbeit fortwährend sinkt.

Marx gives now three scenarios in which the daily wage remains constant or rises, while the price of labor does not increase or falls. (In other words, the examples are a little broader than suggested by the above introductory sentence.) They are examples for what *may* happen without the law of value being violated, without the claim that things *have to* occur this way. If, for example, the usual working day is 10 hours and the daily value of labor-power 3 shillings, the price of the working hour is $3\frac{3}{5}d$. It falls to $3d$. as soon as the working day rises to 12 hours, and to $2\frac{2}{5}d$. as soon as it rises to 15 hours. Despite all this, daily or weekly wages remain unchanged.

War z.B. der gewohnheitsmäßige Arbeitstag 10 Stunden und der Tageswert der Arbeitskraft 3 sh., so betrug der Preis der Arbeitsstunde $3\frac{3}{5}d$.; er sinkt auf $3d$., sobald der Arbeitstag zu 12 Stunden, und $2\frac{2}{5}d$., sobald er zu 15 Stunden steigt. Tages- oder Wochenlohn bleiben trotzdem unverändert.

First scenario: a lengthening of the working-day with constant daily wage benefits the capitalist since it increases surplus-value, but it does not violate the law of value since the worker is still getting a wage which allows him to reproduce his labor-power—unless the extremely long day cuts into the essence of his or her labor-power.

Question 1108 *How can the price of labor be reduced even without changing the weekly pay?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP.

↓ Second scenario: Lengthening of the working day with constant *hourly* wages:

Inversely, daily or weekly wages may rise, although the price of labor remains constant or even falls. If, for instance, the working day is 10 hours and the daily value of labor-power 3 shillings, the price of one working hour is $3\frac{3}{5}d$. If the worker, owing to an increase in the number of orders, works for 12 hours, and the price of labor remains the same, his daily wage now rises to $3s. 7\frac{1}{5}d$., without any variation having taken place in the price of labor. The same result might follow if, instead of the extensive magnitude of labor, its intensive magnitude increased.³² The rise of nominal daily or weekly wages may therefore be unaccompanied by any change in the price of labor, or may even be accompanied by a fall in the latter.

Umgekehrt kann der Taglohn oder Wochenlohn steigen, obgleich der Preis der Arbeit konstant bleibt oder selbst sinkt. War z.B. der Arbeitstag zehnstündig und ist der Tageswert der Arbeitskraft 3 sh., so der Preis einer Arbeitsstunde $3\frac{3}{5}d$. Arbeitet der Arbeiter infolge zunehmender Beschäftigung und bei gleichbleibendem Preise der Arbeit 12 Stunden, so steigt sein Tageslohn nun auf $3s. 7\frac{1}{5}d$. ohne Variation im Preise der Arbeit. Dasselbe Resultat könnte herauskommen, wenn statt der extensiven Größe der Arbeit ihre intensive Größe zunähme.³² Steigen des nominellen Tages- oder Wochenlohns mag daher begleitet sein von gleichbleibendem oder sinkendem Preis der Arbeit.

↓ The footnote emphasizes the beneficial aspects of the second scenario for both capitalist and laborer:

1. [Quantitative Determination of Time Wages and Value of Labor]

³² ‘The wages of labor depend upon the price of labor and the quantity of labor performed ... An increase in the wages of labor does not necessarily imply an enhancement of the price of labor. From fuller employment, and greater exertions, the wages of labor may be considerably increased, while the price of labor may continue the same’ [Wes26, p. 67–8, 112]. However, West disposes of the main question, ‘How is the price of labor determined?’, with mere banalities.

³² „Die Arbeitslöhne hängen vom Preis der Arbeit und der Menge der geleisteten Arbeit ab ... Eine Erhöhung der Arbeitslöhne schließt nicht notwendig eine Steigerung des Preises der Arbeit ein. Bei längerer Beschäftigung und größerer Anstrengung können die Arbeitslöhne beträchtlich anwachsen, während der Preis der Arbeit derselbe bleiben kann.“ [Wes26, p. 67, 68 u. 112]. Die Hauptfrage: wie wird der „price of labour“ bestimmt? fertigt West übrigens mit banalen Redensarten ab.

↑ Marx’s last remark indicates that he approves with West’s observation. Marx calls the determination of the price of labor the “main question” because it allows to compute the rate of surplus-value, i.e., the rate of exploitation.

↓ The third scenario is relevant today, when each family increasingly has two wage-earners. Marx already discussed it in the Machinery chapter, 398:2/o.

The same thing holds for the income of the worker’s family, when the quantity of labor provided by the head of the family is augmented by the labor of the members of his family.

Dasselbe gilt von der Einnahme der Arbeiterfamilie, sobald das vom Familienhaupt gelieferte Arbeitsquantum durch die Arbeit der Familienglieder vermehrt wird.

↓ All three examples have one thing in common:

There are therefore methods of lowering the price of labor which are independent of any reduction in the nominal daily or weekly wage.³³

Es gibt also von der Schmälerung des nominellen Tages- oder Wochenlohns unabhängige Methoden zur Herabsetzung des Preises der Arbeit.³³

³³ The most fanatical representative of the eighteenth-century industrial bourgeoisie, the author of the *Essay on Trade and Commerce*, whom we have often quoted already, notices this, although he puts the matter in a confused way: ‘It is the quantity of labor and not the price of it’ (he means by this the nominal daily or weekly wage) ‘that is determined by the price of provisions and other necessities: reduce the price of necessities very low, and of course you reduce the quantity of labor in proportion. Master-manufacturers know that there are various ways of raising and falling the price of labor, besides that of altering its nominal amount’ (op. cit., pp. 48, 61). N. W. Senior, in his *Three Lectures on the Rate of Wages*, London, 1830, where he uses West’s work without mentioning it, has this to say: ‘The laborer is principally interested in the amount of wages’ (p. 15). That is to say, the worker is principally interested in what he receives, the nominal sum of his wages, not in what he gives, the quantity of labor!

³³ Dies fühlt der fanatischste Vertreter der industriellen Bourgeoisie des 18. Jahrhunderts, der oft von uns zitierte Verfasser des „*Essay on Trade and Commerce*“ richtig heraus, obgleich er die Sache konfus darstellt: „Es ist die Menge der Arbeit und nicht ihr Preis“ (versteht darunter den nominellen Tages- oder Wochenlohn), „die durch den Preis der Nahrungsmittel und anderen lebensnotwendigen Dinge bestimmt wird: setzt den Preis der lebensnotwendigen Dinge stark herab, so senkt ihr natürlich entsprechend die Menge der Arbeit ... Die Fabrikherren wissen, daß es verschiedene Wege gibt, den Preis der Arbeit zu heben oder zu senken, außer der Änderung seines nominellen Betrags.“ (l.c. p. 48 u. 61.) In seinen „*Three Lectures on the Rate of Wages*“, Lond. 1830, worin N. W. Senior Wests Schrift benutzt, ohne sie anzuführen, sagt er u.a.: „Der Arbeiter ist hauptsächlich an der Höhe des Arbeitslohnes interessiert.“ (p. 15.) Also der Arbeiter ist hauptsächlich interessiert in dem, was er erhält, dem nominellen Betrag des Lohns, nicht in dem, was er gibt, der Quantität der Arbeit!

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Question 1109 *Is it true that the laborer is only interested in what he receives, i.e., the overall daily wage income, and not interested in what he gives, i.e., the overall length of his work day?* [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#).

↑ If the worker is forced by low wages to accept a long workday, this doesn't mean that the worker is *not interested* in the length of the workday—although it may be soothing to the consciousness of the capitalists to think so. But we understand now the origin of the double measurement of nominal wages, and also why Marx gave examples where the price of labor falls and the daily wage rises: “price of labor” is that what the capitalist is interested in, while the total daily or weekly wage is that what the worker depends on to pay his bills. Capitalist and worker pull in different, but not exactly opposite directions. The capitalists want to pay a lower price per unit of labor performed, while the workers want a higher weekly or daily wage. This leads to the compromise of packing more but lower-paid labor into each day in order to satisfy both the capitalist's demand for cheap labor and the worker's need for higher wages. This compromise can only be achieved by lengthening the workday, i.e., it ultimately goes at the expense of the worker. Marx discusses this effect in more detail in the chapter on piece wages, starting . Piece wages share with time wages the tendency to extend the working hours, in addition to their obvious tendency to intensify labor.

2. [Hourly Wage and Length of Working Day]

If we look at the underlying structural relations, the daily wage is determined by structural economic laws, namely, by the value of labor-power, and the price of labor is derived from it, it can be obtained by dividing the daily wage by the length of the workday. But on the surface, the price of labor, not the value of labor-power, is the basis for the calculation of the daily wage. On the surface, therefore, causality goes in the opposite direction: the daily wage is obtained by multiplying the hourly wage by the length of the working-day. This multiplicative relationship is represented by Marx as two different laws, each of which holds one factor constant. As in chapter Seventeen, it can be argued that Marx decomposes the multiplication of two independent variables into two different laws, because different mechanisms are active in the two situations “price of labor constant” and “length of the working-day constant.” ↓ The first sentence contains a “however” because examples of this general law were just discussed:

As a general law, however, it follows that, given the amount of daily, weekly labor, etc., the daily or weekly wage depends on the price of labor, which itself varies either with the value of labor-power, or with the divergencies between its price and its value. Given the price of labor, on the other hand, the daily or weekly wage depends on the quantity of labor expended daily or weekly.

567:1 Als allgemeines Gesetz aber folgt: Ist die Quantität der Tages-, Wochenarbeit usw. gegeben, so hängt der Tages- oder Wochenlohn vom Preise der Arbeit ab, der selbst variiert, entweder mit dem Wert der Arbeitskraft oder den Abweichungen ihres Preises von ihrem Werte. Ist dagegen der Preis der Arbeit gegeben, so hängt der Tages- oder Wochenlohn von der Quantität der Tages- oder Wochenarbeit ab.

Note that Marx only says that they depend, not that they are proportional to each other. As it turns out, their dependency is not quite proportional. In these deviations from proportionality, the underlying relations of production assert themselves against the “wrong”

2. [Hourly Wage and Length of Working Day]

surface causality. Marx begins with the second alternative, first in the case that the work day is *shortened*.

Question 1111 *In 683:4/o, Marx gives a formula which allows us to compute the price of labor from the daily value of labor-power. But in 685:1, he says that the daily value of labor-power depends on the price of labor. In which direction does the causality go? Does the daily value of labor-power depend on the price of labor, or the price of labor on the daily value of labor-power?* [2013fa](#), [2011fa](#), [2008fa](#), [2007SP](#).

Some of the examples that follow now are an elaboration of the examples hinted at briefly in .

2.a. [Abnormal Underemployment]

The clash between surface relations and core relations is most acute when the capitalist works short hours. If the labor-day consists of fewer hours than the norm on which the price of labor is based, then the laborer's wages are not sufficient for the laborer to live.

The unit of measurement for time-wages, the price of the working hour, is the value of a day's labor-power divided by the number of hours in the average working day. Let the latter be 12 hours, and the daily value of labor-power 3 shillings, the value-product of 6 hours of labor. Under these circumstances, the price of a working hour is 3d., and the value produced in it is 6d. If the worker is now employed for less than 12 hours a day (or for less than 6 days in the week), for instance only for 6 or 8 hours, he receives, at the price of labor just mentioned, only 2s. or 1s. 6d. a day.³⁴ As, on our hypothesis, he must work on average 6 hours a day in order to produce a day's wage which corresponds to nothing more than the value of his labor-power, and as, on the same hypothesis, he works only half of every hour for himself, and half for the capitalist, it is clear that he cannot obtain for himself the value-product of 6 hours if he is employed for less than 12 hours. In previous chapters we saw the destructive consequences of overwork; but here we come upon the origin of the sufferings which arise for the worker out of his being insufficiently employed.

567:2/o Die Maßeinheit des Zeitlohns, der Preis der Arbeitsstunde, ist der Quotient des Tageswerts der Arbeitskraft, dividiert durch die Stundenzahl des gewohnheitsmäßigen Arbeitstags. Gesetzt, letztrer betrage 12 Stunden, der Tageswert der Arbeitskraft 3 sh., das Wertprodukt von 6 Arbeitsstunden. Der Preis der Arbeitsstunde ist unter diesen Umständen 3 d., ihr Wertprodukt 6 d. Wird der Arbeiter nun weniger als 12 Stunden täglich (oder weniger als 6 Tage in der Woche) beschäftigt, z.B. nur 6 oder 8 Stunden, so erhält er, bei diesem Preise der Arbeit, nur 2 oder 1 1/2 sh. Taglohn.³⁴ Da er nach der Voraussetzung im Durchschnitt 6 Stunden täglich arbeiten muß, um nur einen dem Wert seiner Arbeitskraft entsprechenden Taglohn zu produzieren, da er nach derselben Voraussetzung von jeder Stunde nur 1/2 für sich selbst, 1/2 aber für den Kapitalisten arbeitet, so ist es klar, daß er das Wertprodukt von 6 Stunden nicht herauschlagen kann, wenn er weniger als 12 Stunden beschäftigt wird. Sah man früher die zerstörenden Folgen der Überarbeit, so entdeckt man hier die Quellen der Leiden, die für den Arbeiter aus seiner Unterbeschäftigung entspringen.

Footnote 34 clarifies that the effects of a *general* reduction of the working-day are different than those of a working-day which falls below the norm.

³⁴ The effect of such an abnormal under-employment is quite different from that of a gen-

³⁴ Die Wirkung solcher anormalen Unterbeschäftigung ist durchaus verschieden von der

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eral reduction of the working day, enforced by law. The former has nothing to do with the absolute length of the working day, and may just as well occur in a working day of 15 hours as in one of 6. The normal price of labor is in the first case calculated on the basis of an average working day of 15 hours, and in the second case a working day of 6 hours. The result is therefore the same if the worker is employed in the one case for only 7 hours, and in the other case for only 3 hours.

↓ Next Marx discusses a situation in which a normal working-day is not even specified. If wages are contracted by the hour, without obligation on part of the employer for a daily or weekly minimum employment, the capitalist can harvest surplus labor without allowing the worker to perform his or her necessary labor.

If the hour's wage is fixed in such a way that the capitalist does not bind himself to pay a day's or a week's wage, but only to pay wages for the hours during which he chooses to employ the worker, he can employ him for a shorter time than that which is originally the basis of the calculation of the wages for the hour, or the unit of measurement of the price of labor.

↓ The rest of this paragraph argues this situation in more detail.

Since this unit is determined by the ratio of the daily value of labor-power to the working day of a given number of hours, it naturally loses all meaning as soon as the working day ceases to contain a definite number of hours. The connection between paid and unpaid labor is broken.

↑ The word translated here with "broken" is "*aufgehoben*," which usually indicates the negation of a negation. But here the dialectic turns in a downward spiral, not an upward spiral. With necessary labor as the position and surplus-labor as its negation, an upward-spiraling negation of the negation would in some way lead to the elimination of surplus-labor. But here the negation of the negation leads to the erosion of necessary labor: the laborer, for the sake of surplus-labor is no longer allowed to perform his necessary labor.

Question 1112 *In a system of hourly wages without a set daily minimum of hours, Marx says that "the connection between the paid and the unpaid labor is broken." Explain what he means by this. Answer, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007SP.*

Question 1113 *Do you know other examples of downward-spiraling dialectics in Marx's Capital?*

The capitalist can now wring from the worker a certain quantity of surplus labor

einer allgemeinen zwangsgesetzlichen Reduktion des Arbeitstags. Erstere hat mit der absoluten Länge des Arbeitstags nichts zu schaffen und kann ebensowohl bei 15stündigem als bei 6stündigem Arbeitstag eintreten. Der normale Preis der Arbeit ist im ersten Fall darauf berechnet, daß der Arbeiter 15 Stunden, im zweiten darauf, daß er 6 Stunden per Tag durchschnittlich arbeitet. Die Wirkung bleibt daher dieselbe, wenn er in dem einen Fall nur 7 1/2, in dem andren nur 3 Stunden beschäftigt wird.

568:1 Wird der Stundenlohn in der Weise fixiert, daß der Kapitalist sich nicht zur Zahlung eines Tages- oder Wochenlohns verpflichtet, sondern nur zur Zahlung der Arbeitsstunden, während deren es ihm beliebt, den Arbeiter zu beschäftigen, so kann er ihn unter der Zeit beschäftigen, die der Schätzung des Stundenlohns oder der Maßeinheit für den Preis der Arbeit ursprünglich zugrunde liegt.

Da diese Maßeinheit bestimmt ist durch die Proportion $\frac{\text{Tageswert der Arbeitskraft}}{\text{Arbeitstag von gegebener Stundenzahl}}$, verliert sie natürlich allen Sinn, sobald der Arbeitstag aufhört, eine bestimmte Stundenzahl zu zählen. Der Zusammenhang zwischen der bezahlten und unbezahlten Arbeit wird aufgehoben.

Der Kapitalist kann jetzt ein bestimmtes Quantum Mehrarbeit aus dem Arbeiter

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without allowing him the labor-time necessary for his own subsistence. He can annihilate all regularity of employment, and according to his own convenience, caprice, and the interest of the moment, make the most frightful overwork alternate with relative or absolute cessation of work. He can abnormally lengthen the working day without giving the worker any corresponding compensation, under the pretense of paying 'the normal price of labor'. Hence the perfectly rational revolt of the London building workers in 1860 against the attempt of the capitalists to impose on them this sort of wage by the hour.

ter herausschlagen, ohne ihm die zu seiner Selbsterhaltung notwendige Arbeitszeit einzuräumen. Er kann jede Regelmäßigkeit der Beschäftigung vernichten und ganz nach Bequemlichkeit, Willkür und augenblicklichem Interesse die ungeheuerste Überarbeit mit relativer oder gänzlicher Arbeitslosigkeit abwechseln lassen. Er kann, unter dem Vorwand, den „normalen Preis der Arbeit“ zu zahlen, den Arbeitstag, ohne irgend entsprechende Kompensation für den Arbeiter, anormal verlängern. Daher der durchaus rationelle Aufstand (1860) der im Baufach beschäftigten Londoner Arbeiter gegen den Versuch der Kapitalisten, diesen Stundenlohn aufzuherrschen.

⇓ Apparently, Marx expected that the legal limitation of the working day would have the consequence that hourly wage contracts would specify a minimum number of hours which the capitalist would have to pay every day, or have other protections against short working hours.

The legal limitation of the working day puts an end to nonsense of this kind, though it does not of course end the diminution of employment caused by the competition of machinery, by changes in the quality of the workers employed, and partial or general crises.

Die gesetzliche Beschränkung des Arbeitstags macht solchem Unfug ein Ende, obgleich natürlich nicht der aus Konkurrenz der Maschinerie, Wechsel in der Qualität der angewandten Arbeiter, partiellen und allgemeinen Krisen entspringenden Unterbeschäftigung.

2.b. [Long Hours and Overtime Pay]

Now the other side of the second alternative in : the price of labor is given and the length of the working day varies. Marx said some things about this already in chapter Seventeen, beginning 526:1–5, and here he only gives some additional points. His first additional point is: if the work day becomes too long, then the additional wear on the worker changes the arithmetic from a linear to a nonlinear relation. This too is an effect of the invisible connections beneath the surface.

With increasing daily or weekly wage, the price of labor may remain nominally constant, and yet fall below its normal level. This occurs every time the working day is prolonged beyond its customary length, while the price of labor (reckoned per working hour) remains constant. If, in the fraction $\frac{\text{daily value of labor-power}}{\text{working day}}$, the denominator increases, the numerator increases still more rapidly. The amount of deterioration in labor-power, and therefore its value, in-

568:2/oo Bei wachsendem Tages- oder Wochenlohn kann der Preis der Arbeit nominell konstant bleiben und dennoch unter sein normales Niveau sinken. Dies findet jedesmal statt, sobald mit konstantem Preis der Arbeit, resp. der Arbeitsstunde, der Arbeitstag über seine gewohnheitsmäßige Dauer verlängert wird. Wenn in dem Bruch $\frac{\text{Tageswert der Arbeitskraft}}{\text{Arbeitstag}}$ der Nenner wächst, wächst der Zähler noch rascher. Der Wert der Arbeitskraft, weil ihr Verschleiß, wächst

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creases with the duration of its functioning, and to a more rapid degree than the increase of that duration.

This increased depreciation is reflected on the surface by "overtime pay."

In many branches of industry, where time-wages are the general rule and there are no legal limits to the length of the working day, the habit has therefore spontaneously grown up of regarding the working day as normal only up to a point in time, for instance up to the expiration of the tenth hour ('normal working day', 'the day's work', 'the regular hours of work'). Beyond this limit the working time is overtime, and is paid at a better hourly rate ('extra pay'), although often in a proportion which is ridiculously small.³⁵

³⁵ "The rate of payment for overtime" (in lace-making) 'is so small, from 1/2d. and 3/4d. to 2d. per hour, that it stands in painful contrast to the amount of injury produced to the health and stamina of the workpeople ... The small amount thus earned is also often obliged to be spent in extra nourishment' (Children's Employment Commission, Second Report, p. xvi, n. 117).

↓ Two implications of the division of the day into regular time and overtime. (1) it undermines the normalization of the working-day.

The normal working day exists here as a fraction of the actual working day, and it often happens that the latter exceeds the former during the entire year.³⁶

³⁶ As for instance in paper-staining until the recent introduction into this trade of the Factory Act. 'We work on with no stoppage for meals, so that the day's work of 10 1/2 hours is finished by 4.30 p.m., and all after that is overtime, and we seldom leave off working before 6 p.m., so that we are really working overtime the whole year round' (Mr Smith's evidence, in Children's Employment Commission, First Report, p. 125).

↓ (2) Regular pay is depressed, so that the workers are forced to work longer because they depend on overtime pay.

The increase in the price of labor when the working day is extended beyond a certain normal limit takes place in various British industries in such a way that the low price of labor during the so-called normal time

mit der Dauer ihrer Funktion und in rascherer Proportion als das Inkrement ihrer Funktionsdauer.

In vielen Industriezweigen, wo Zeitlohn vorherrscht, ohne gesetzliche Schranken der Arbeitszeit, hat sich daher naturwüchsig die Gewohnheit herausgebildet, daß der Arbeitstag nur bis zu einem gewissen Punkt, z.B. bis zum Ablauf der zehnten Stunde, als normal gilt („normal working day“, „the day's work“, „the regular hours of work“). Jenseits dieser Grenze bildet die Arbeitszeit Überzeit (overtime) und wird, die Stunde als Maßeinheit genommen, besser bezahlt (extra pay), obgleich oft in lächerlich kleiner Proportion.³⁵

³⁵ „Die Rate der Zahlung für Überzeit“ (in der Spitzenmanufaktur) „ist so klein, 1/2 d. usw. per Stunde, daß sie in peinlichem Kontrast steht zur massenhaften Unbill, die sie der Gesundheit und Lebenskraft der Arbeiter antut ... Der so gewonnene kleine Überschuß muß außerdem oft in Extra-Erfrischungsmitteln wieder verausgabt werden.“ („Child. Empl. Comm., II. Rep.“, p. XVI, n. 117.)

Der normale Arbeitstag existiert hier als Bruchteil des wirklichen Arbeitstags, und der letztere währt oft während des ganzen Jahres länger als der erstere.³⁶

³⁶ Z.B. in der Tapetendruckerei vor der neuen Einführung des Fabrikakts. „Wir arbeiteten ohne Pause für Mahlzeiten, so daß das Tageswerk von 10 1/2 Stunden um halb 5 Uhr nachmittags beendet ist, und alles spätere ist Überzeit, die selten vor 6 Uhr abends aufhört, so daß wir in der Tat das ganze Jahr durch Überzeit arbeiten.“ (Mr. Smiths Evidene in „Child. Empl. Comm., I. Rep.“, p. 125.)

Der Wachstum im Preis der Arbeit mit der Verlängerung des Arbeitstags über eine gewisse Normalgrenze gestaltet sich in verschiedenen britischen Industriezweigen so, daß der niedrige Preis der Arbeit während

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compels the worker to work during the better paid overtime, if he wishes to obtain a sufficient wage at all.³⁷

³⁷ As for instance in the bleaching-works of Scotland. 'In some parts of Scotland this trade' (before the introduction of the Factory Act in 1862) 'was carried on by a system of overtime, i.e. ten hours a day were the regular hours of work, for which a nominal wage of 1s. 2d. per day was paid to a man, there being every day overtime for 3 or 4 hours, paid at the rate of 3d. per hour. The effect of this system' (was as follows:) 'a man could not earn more than 8s. per week when working the ordinary hours ... without overtime they could not earn a fair day's wages' (Reports of the Inspectors of Factories ... 30 April 1863, p. 10). 'The higher wages, for getting adult males to work longer hours, are a temptation too strong to be resisted' (Reports of the Inspectors of Factories ... 30 April 1848, p. 5). The book-binding trade in the city of London employs a large number of young girls from 14 to 15 years old under indentures which prescribe certain definite hours of labor. Nevertheless, they work in the last week of each month until 10, 11, 12 or 1 o'clock at night, along with the older male workers, in very mixed company. 'The masters tempt them by extra pay and supper,' which they eat in neighbouring public houses. The great debauchery thus produced among these 'young immortals' (Children's Employment Commission. Fifth Report, p. 44, n. 191) finds its compensation in the fact that, among other things, they bind many Bibles and other edifying books.

↓ As in , Marx had too high hopes in a legal limitation of the working-day.
Legal limitation of the working day puts an end to this pastime.³⁸

³⁸ See Reports of the Inspectors of Factories ... 30 April 1863, op. cit. The London building workers showed a very accurate appreciation of this state of affairs when, during the great strike and lock-out of 1860, they declared that they would accept wages by the hour under only two conditions: (1) that, alongside the price of the working hour, a normal working day of 9 and 10 hours respectively should be laid down, and that the price of the hour for the 10-hour working day should be higher than that for an hour of the 9-hour working day; and (2) that every hour beyond the normal working day should be reck-

der sog. Normalzeit dem Arbeiter die besser bezahlte Überzeit aufzwingt, will er überhaupt einen genügenden Arbeitslohn herausschlagen.³⁷

³⁷ Z.B. in den schottischen Bleichereien. „In einigen Teilen Schottlands wurde diese Industrie“ (vor Einführung des Fabrikakts 1862) „nach dem System der Überzeit betrieben, d.h. 10 Stunden galten als normaler Arbeitstag. Dafür erhielt der Mann 1 sh. 2 d. Hierzu kam aber täglich eine Überzeit von 3 oder 4 Stunden, wofür 3 d. per Stunde gezahlt wurde. Folge dieses Systems: Ein Mann, der nur die Normalzeit arbeitete, konnte nur 8 sh. Wochenlohn verdienen. Ohne Überzeit reichte der Lohn nicht aus.“ („Reports of Insp. of Fact., 30th April 1863“, p. 10.) Die „Extrazahlung für Überzeit ist eine Versuchung, der die Arbeiter nicht widerstehen können“. („Rep. of Insp. of Fact., 30th April 1848“, p. 5.) Die Buchbinderei in der City von London verwendet sehr viele junge Mädchen vom 14.–15. Jahr an, und zwar unter dem Lehrlingskontrakt, der bestimmte Arbeitsstunden vorschreibt. Nichtsdestoweniger arbeiten sie in der Schlußwoche jedes Monats bis 10, 11, 12 und 1 Uhr nachts, zusammen mit den älteren Arbeitern, in sehr gemischter Gesellschaft. „Die Meister verlocken (tempt) sie durch Extralohn und Geld für ein gutes Nachtessen“, das sie in benachbarten Kneipen zu sich nehmen. Die große Liederlichkeit, so unter diesen „young immortals“ produziert („Child. Empl. Comm., V. Rep.“, p. 44, n. 191), findet ihre Kompensation darin, daß von ihnen unter andrem auch viele Bibeln und Erbauungsbücher gebunden werden.

Gesetzliche Beschränkung des Arbeitstags macht diesem Vergnügen ein Ende.³⁸

³⁸ Sieh „Reports of Insp. of Fact., 30th April 1863“, i.e. Mit ganz richtiger Kritik des Sachverhältnisses erklärten die im Baufach beschäftigten Londoner Arbeiter während des großen strike und lock-out von 1860, den Stundenlohn nur annehmen zu wollen unter zwei Bedingungen: 1. daß mit dem Preis der Arbeitsstunde ein Normalarbeitstag von resp. 9 und 10 Stunden festgesetzt werde und der Preis für die Stunde des zehnstündigen Arbeitstags größer sei als für die des neunstündigen; 2. daß jede Stunde über den Normaltag hinaus als Überzeit verhältnismäßig höher bezahlt werde.

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oned as overtime and proportionally more highly paid.

↑ The strike of 1860 was already mentioned in .

Exam Question 1115 *What is the difference between surplus labor time and overtime?*
Answer, 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP.

Question 1116 *In Chapter Twenty, Marx mentions two abuses connected with the wage which he thought would be abolished with the legal limitation of the working-day but which weren't. Which are those?* *2012fa, 2011fa, 2010fa, 2009fa, 2007fa, 2007SP.*

2.c. [Extension of Regular Hours Leads to Lower Wages]

While the previous examples discussed a *temporary* shortening or lengthening of the working-day compared to its normal length, the next example looks at the implications of an increase of the normal length itself. Marx begins with some empirical facts:

It is a generally known fact that the longer the working day in a branch of industry, the lower the wages are.³⁹

³⁹ 'It is a very notable thing, too, that where long hours are the rule, small wages are also so' (Reports of the Inspectors of Factories . . . 31 October 1863, p. 9). 'The work which obtains the scanty pittance of food, is, for the most part, excessively prolonged' (Public Health, Sixth Report, 1864, p. 15).

↓ Not only the hourly rate but even the total daily wage is lower in industries with long hours!

The factory inspector Alexander Redgrave illustrates this by a comparative review of the twenty years from 1839 to 1859, according to which wages rose in the factories under the Ten Hours' Act, while they fell in the factories where the work went on for 14 and 15 hours every day.⁴⁰

⁴⁰ Reports of the Inspectors of Factories . . . 30 April 1860, pp. 31–2.

Now Marx explains how this negative correlation between length of working day and wages comes about. He does not start with a longer working-day but with the other side, low hourly wages. Why? Because the level of the hourly wages seems an objectively given, market-determined condition. In response to these low wages, workers agree to work more hours every day so that they can survive. They rely here on the second surface law discussed in , that with a fixed price of labor, a longer day will give them a higher daily wage.

From the law stated above, namely that the price of labor being given, the daily or weekly wage depends on the quantity of labor expended, it follows, first of all, that the

570:1 Es ist allgemein bekannte Tatsache, daß, je länger der Arbeitstag in einem Industriezweig, um so niedriger der Arbeitslohn.³⁹

³⁹ „Es ist zudem eine recht bemerkenswerte Tatsache, daß da, wo in der Regel die Arbeitszeit lang ist, die Löhne gering sind.“ („Rep. of Insp. of Fact., 31st Oct. 1863“, p. 9.) „Die Arbeit, die einen Hungerlohn einbringt, ist meist übermäßig lang.“ („Public Health, Sixth Rep. 1863“, p. 15.)

Fabrikinspektor A. Redgrave illustriert dies durch eine vergleichende Übersicht der zwanzigjährigen Periode von 1839–1859, wonach der Arbeitslohn in den dem Zehn-stundengesetz unterworfenen Fabriken stieg, während er fiel in den Fabriken, wo 14 bis 15 Stunden täglich gearbeitet wird.⁴⁰

⁴⁰ „Reports of Insp. of Fact., 30th April 1860“, p. 31, 32.

570:2 Zunächst folgt aus dem Gesetz: „Bei gegebenem Preis der Arbeit hängt der Tages- oder Wochenlohn von der Quantität der gelieferten Arbeit ab“, daß, je niedriger

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lower the price of labor, the greater must be the quantity of labor, or the longer must be the working day, for the worker to secure even a miserable average wage. The low level of the price of labor acts here as a stimulus to the extension of the labor-time.⁴¹

⁴¹ The hand nail-makers of England, for example, have to work 15 hours a day, because of the low price of their labor, in order to hammer out an extremely wretched weekly wage. 'It's a great many hours in a day (6 a.m. to 8 p.m.), and he has to work hard all the time to get 11d. or 1s., and there is the wear of the tools, the cost of firing, and something for waste iron to go out of this, which takes off altogether 2 1/2d. or 3d' (Children's Employment Commission, Third Report, p. 136, n. 671). The women, although they work for the same length of time, earn a weekly wage of only 5s. (ibid., p. 137, n. 674).

↓ However, these longer working hours set deeper mechanisms in motion which decrease the already low hourly wages even more:

However, the extension of the period of labor produces in its turn a fall in the price of labor, and with this a fall in the daily or the weekly wage.

↑ Marx says here that the fall in the price of labor will not only erase the gains expected by the workers when they agreed to or acquiesced with longer hours, but at the end the daily wage will even be lower than initially. ↓ By what mechanisms? The first mechanism is the regularity first formulated in .

The determination of the price of labor by use of the ratio $\frac{\text{daily value of labor-power}}{\text{working day of a given number of hours}}$ shows that the prolongation of the working day itself lowers the price of labor, if no compensatory factor enters.

↑ This cannot yet be the whole answer, since according to this formula, the total daily wage after lengthening the working-day is the same as it was before. According to this law, one should expect the daily wage to be independent of the length of the working-day, instead of being negatively related to it. Other forces must be at work to generate the negative relation. ↓ The existence of such other forces (Marx calls them here "circumstances") is already indicated by the fact that the working-day is longer than normal to begin with:

But the same circumstances which allow the capitalist in the long run to prolong the working day also allow him at first, and compel him finally, to reduce the price of labor nominally as well until the total price of the increased number of hours goes down,

der Preis der Arbeit, desto größer das Arbeitsquantum sein muß oder desto länger der Arbeitstag, damit der Arbeiter auch nur einen kümmerlichen Durchschnittslohn sichere. Die Niedrigkeit des Arbeitspreises wirkt hier als Sporn zur Verlängerung der Arbeitszeit.⁴¹

⁴¹ Die Hand-Nägelmacher in England haben z.B. wegen des niedrigen Arbeitspreises 15 Stunden täglich zu arbeiten, um den kümmerlichsten Wochenlohn herauszuschlagen. „Es sind viele, viele Stunden des Tags, und während aller der Zeit muß er hart schanzen, um 11 d. oder 1 sh. herauszuschlagen, und davon gehen 2 1/2 bis 3 d. ab für Verschleiß der Werkzeuge, Feuerung, Eisenabfall.“ („Child. Empl. Comm., III. Rep.“, p. 136, n. 671.) Die Weiber verdienen bei derselben Arbeitszeit nur einen Wochenlohn von 5 sh. (l.c. p. 137, n. 674.)

571:1 Umgekehrt aber produziert ihrerseits die Verlängerung der Arbeitszeit einen Fall im Arbeitspreise und damit im Tages- oder Wochenlohn.

571:2–572:3 Die Bestimmung des Arbeitspreises durch $\frac{\text{Tageswert der Arbeitskraft}}{\text{Arbeitstag von gegebner Stundenzahl}}$ ergibt, daß bloße Verlängerung des Arbeitstags den Arbeitspreis senkt, wenn keine Kompensation eintritt.

Aber dieselben Umstände, welche den Kapitalisten befähigen, den Arbeitstag auf die Dauer zu verlängern, befähigen ihn erst und zwingen ihn schließlich, den Arbeitspreis auch nominell zu senken, bis der Gesamtpreis der vermehrten Stundenzahl sinkt, also

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and therefore the daily or weekly wage falls. | der Tages- oder Wochenlohn.

Let us summarize Marx's answers to the question: why are abnormally long hours associated with abnormally low daily wages, in such a way that the longer the hours the lower the daily wage? According to the underlying laws of capitalist production, one should expect the daily wage to be independent of the length of the working-day, since it is determined by the reproduction cost of the laborer, not by the amount of labor performed. One should also expect the length of the working-day to be equal for all industries. In those industries in which the working-day is longer than normal, extraordinary circumstances must prevail which allow the capitalists to impose a longer working-day on the workers. Marx's point is now that longer working hours are probably not the only effect of such extraordinary circumstances. If the workers are in a situation where they must agree to work longer hours, then they are probably also forced to accept lower overall wages.

Question 1117 *How does Marx argue that longer hours are associated with a lower overall daily wage?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP.

It is not necessary for this derivation to specify what those extraordinary circumstances are. ↓ Only as a proof of concept, in order to show that such circumstances exist and work as conjectured, Marx brings two examples of such circumstances. (He calls them "circumstances" because they are competitive constellations.)

Here we need only refer to two kinds of circumstance.

Hinweis auf zwei Umstände genügt hier.

Both examples have to do with competitive forces in situations in which the market does not clear.

↓ In the first example, there is an excess supply in the labor market. In order not to get fired, the worker works extra hard. But by working more, the worker increases the supply of labor even more. I.e., he competes with himself or herself:

If one man does the work of 1 1/2 or 2 men, the supply of labor increases, although the supply of labor-power on the market remains constant. The competition thus created between the workers allows the capitalist to force down the price of labor, while the fall in the price of labor allows him, on the other hand, to force up the hours of work still further.⁴²

Verrichtet ein Mann das Werk von 1 1/2 oder 2 Männern, so wächst die Zufuhr der Arbeit, wenn auch die Zufuhr der auf dem Markt befindlichen Arbeitskräfte konstant bleibt. Die so unter den Arbeitern erzeugte Konkurrenz befähigt den Kapitalisten, den Preis der Arbeit herabzudrücken, während der fallende Preis der Arbeit ihn umgekehrt befähigt, die Arbeitszeit noch weiter heraufzuschrauben.⁴²

⁴² For instance, if a factory worker refuses to work the long hours which are customary, 'he would very shortly be replaced by somebody who would work any length of time, and thus be thrown out of employment' (Reports of the Inspectors of Factories ... 30 April 1848, Evidence, p. 39, n. 58). 'If one man performs the work of two ... the rate of profits will generally be raised ... in consequence of the additional supply of labor having diminished its price' (Senior, op. cit., p. 15).

⁴² Wenn ein Fabrikarbeiter z.B. verweigerte, die hergebrachte lange Stundenzahl zu arbeiten, „würde er sehr schnell durch jemand ersetzt werden, der beliebig lang zu arbeiten gewillt ist, und würde so arbeitslos werden“. („Reports of Insp. of Fact., 31st Oct. 1848“, Evidence, p. 39, n. 58.) „Wenn ein Mann die Arbeit von zweien leistet ... wird im allgemeinen die Profitrate steigen ..., da diese zusätzliche Zufuhr von Arbeit ihren Preis herabgedrückt hat.“ (Senior, l.c. p. 15.)

2. [Hourly Wage and Length of Working Day]

⇓ In the second example, there is an excess supply in the market for the finished product: in this situation, command over abnormally low wages becomes a competitive weapon and leads to abnormally low prices.

Soon, however, this command over abnormal quantities of unpaid labor, i.e. quantities in excess of the average social amount, becomes a source of competition amongst the capitalists themselves. A part of the price of the commodity consists of the price of labor. The unpaid part of the price of labor does not need to be reckoned as part of the price of the commodity. It may be given to the buyer as a present. This is the first step taken under the impulse of competition. The second step, also compelled by competition, is the exclusion from the selling price of the commodity of at least a part of the abnormal surplus-value created by the extension of the working day. In this way, an abnormally low selling price of the commodity arises, at first sporadically, and becomes fixed by degrees; this lower selling price henceforward becomes the constant basis of a miserable wage for excessive hours of work, just as originally it was the product of those very circumstances. We are only hinting at this movement here, as the analysis of competition does not belong to this part of the investigation. Nevertheless, let the capitalist speak for himself, for a moment.

‘In Birmingham there is so much competition of masters one against another, that many are obliged to do things as employers that they would otherwise be ashamed of, and yet no more money is made, but only the public gets the benefit.’⁴³

⁴³ Children’s Employment Commission, Third Report, Evidence, p. 66, n. 22.

Bald jedoch wird diese Verfügung über anormale, d.h. das gesellschaftliche Durchschnittsniveau überfließende Quantität unbezahlter Arbeit zum Konkurrenzmittel unter den Kapitalisten selbst. Ein Teil des Warenpreises besteht aus dem Preis der Arbeit. Der nicht gezahlte Teil des Arbeitspreises braucht nicht im Warenpreis zu rechnen. Er kann dem Warenkäufer geschenkt werden. Dies ist der erste Schritt, wozu die Konkurrenz treibt. Der zweite Schritt, wozu sie zwingt, ist, wenigstens einen Teil des durch die Verlängerung des Arbeitstags erzeugten anormalen Mehrwerts ebenfalls aus dem Verkaufspreis der Ware auszuschließen. In dieser Weise bildet sich erst sporadisch und fixiert sich nach und nach ein anormal niedriger Verkaufspreis der Ware, der von nun an zur konstanten Grundlage kümmerlichen Arbeitslohns bei übermäßiger Arbeitszeit wird, wie er ursprünglich das Produkt dieser Umstände war. Wir deuten diese Bewegung bloß an, da die Analyse der Konkurrenz nicht hierhin gehört. Doch mag für einen Augenblick der Kapitalist selbst sprechen.

„In Birmingham ist die Konkurrenz unter den Meistern so groß, daß mancher von uns gezwungen ist, als Arbeitsanwender zu tun, was er sich schämen würde, sonst zu tun; und dennoch wird nicht mehr Geld gemacht (and yet no more money is made), sondern das Publikum allein hat den Vorteil davon.“⁴³

⁴³ „Child. Empl. Comm., III. Rep.“, Evidence, p. 66, n. 22.

Question 1121 *In which of the examples in this chapter is there a tendency to increase (daily) wages while lowering the (hourly) price of labor; a possibility Marx invoked in 684:1/o? [2011fa](#), [2010fa](#), [2008fa](#).*

[Another Digression about the Undersellers]

The example of the “undersellers,” first introduced in footnote 51 to paragraph [184:1/o](#) in chapter Six, and also discussed in chapter Ten, [256:2](#), illustrates this connection between abnormally low wages and abnormally low prices.

20. Time Wages

The reader will remember the two sorts of London bakers, of whom one sold the bread at its full price (the 'full-priced' bakers), the other below its normal price ('the underpriced', 'the undersellers'). The 'full-priced' denounced their rivals before the Parliamentary Committee of Inquiry:

'They only exist now by first defrauding the public, and next getting 18 hours' work out of their men for 12 hours' wages ... The unpaid labor of the men was made ... the source whereby the competition was carried on, and continues so to this day ... The competition among the master-bakers is the cause of the difficulty in getting rid of night-work. An underseller, who sells his bread below the costprice according to the price of flour, must make it up by getting more out of the labor of the men ... If I got only 12 hours' work out of my men, and my neighbour got 18 or 20, he must beat me in the selling price. If the men could insist on payment for overwork, this would be set right ... A large number of those employed by the undersellers are foreigners and youths, who are obliged to accept almost any wages they can obtain.'⁴⁴

⁴⁴ Report, etc. Relative to the Grievances Complaind of by the Journeymen Bakers, London, 1862, p. lii, and, in the same place, Evidence, notes 479, 359, 27. In any case, the 'full-priced' themselves, as was mentioned above, and as their spokesman, Bennett, himself admits, make their men 'generally begin work at 11 p.m. ... up to 8 o'clock the next morning ... they are then engaged all day long ... as late as 7 o'clock in the evening' (ibid., p. 22).

Man erinnert sich der zwei Sorten Londo-
ner Bäcker, wovon die eine Brot zum vollen
Preise (the „fullpriced“ backers), die and-
re es unter seinem normalen Preise verkauft
(„the underpriced“, „the undersellers“). Die
„fullpriced“ denunzieren ihre Konkurrenten
vor der parlamentarischen Untersuchungs-
kommission:

„Sie existieren nur, indem sie erstens das Pu-
blikum betrügen“ (durch Fälschung der Wa-
re) „und zweitens 18 Arbeitsstunden aus ih-
ren Leuten für den Lohn zwölfständiger Ar-
beit herauschinden ... Die unbezahlte Arbeit
(the unpaid labour) der Arbeiter ist das Mittel,
wodurch der Konkurrenzkampf geführt wird
... Die Konkurrenz unter den Bäckermeistern
ist die Ursache der Schwierigkeit in Beseiti-
gung der Nachtarbeit. Ein Unterverkäufer, der
sein Brot unter dem mit dem Mehrpreis wech-
selnden Kostpreis verkauft, hält sich schad-
los, indem er mehr Arbeit aus seinen Leuten
herausschlägt. Wenn ich nur 12 Stunden Ar-
beit aus meinen Leuten herauschlage, mein
Nachbar dagegen 18 oder 20, muß er mich im
Verkaufspreis schlagen. Könnten die Arbei-
ter auf Zahlung für Überzeit bestehen, so wäre
es mit diesem Manöver bald zu Ende ... Ei-
ne große Anzahl der von den Unterverkäufern
Beschäftigten sind Fremde, Jungen und andre,
die fast mit jedem Arbeitslohn, den sie krie-
gen können, vorlieb zu nehmen gezwungen
sind.“⁴⁴

⁴⁴ „Report etc. relative to the Grievances com-
plaind of by the journeymen bakers“, Lond.
1862, p. LII und ib., Evidence, n. 479, 359,
27. Indes lassen auch die fullpriced, wie früher
erwähnt und wie ihr Wortführer Bennet selbst zu-
gesteht, ihre Leute „Arbeit beginnen um 11 Uhr
abends oder früher und verlängern sie oft bis 7
Uhr des folgenden Abends“. (l.c. p. 22.)

2.d. [Distorted View of Time Wages by the Capitalist]

The complaints of the capitalists about the infringements against their rights to exploit gives a fitting conclusion of the chapter: everything looks different on the surface.

This jeremiad is also interesting because it shows how it is only the semblance of the relations of production which is reflected by the brain of the capitalist. He does not know

572:4/o Diese Jeremiade ist auch deswe-
gen interessant, weil sie zeigt, wie nur der
Schein der Produktionsverhältnisse sich im
Kapitalistenhirn widerspiegelt. Der Kapita-

2. [Hourly Wage and Length of Working Day]

that the normal price of labor also includes a definite quantity of unpaid labor, and that this very unpaid labor is the normal source of his profits. The category of surplus labor-time does not exist at all for him, since it is included in the normal working day, which he thinks he has paid for in the day's wages. But overtime, namely the prolongation of the working day beyond the limits corresponding to the usual price of labor, certainly does exist for him. When faced with his underselling competitor, he even insists upon extra pay for this overtime. Again, he does not know that this extra pay also includes unpaid labor, just as much as the price of the customary hour of labor does. For example, the price of one hour of the 12-hour working day is 3d., say the value-product of half a working hour, while the price of an overtime working hour is 4d., or the value-product of $\frac{2}{3}$ of a working hour. In the first case the capitalist appropriates one-half of the working hour, in the second case one third, without making any payment in return.

list weiß nicht, daß der normale Preis der Arbeit ein bestimmtes Quantum unbezahlter Arbeit einschließt und ebendiese unbezahlte Arbeit die normale Quelle seines Gewinns ist. Die Kategorie der Mehrarbeitszeit existiert überhaupt nicht für ihn, denn sie ist eingeschlossen im normalen Arbeitstag, den er im Taglohn zu zahlen glaubt. Wohl aber existiert für ihn die Überzeit, die Verlängerung des Arbeitstags über die dem gewohnten Preis der Arbeit entsprechende Schranke. Seinem unterverkaufenden Konkurrenten gegenüber besteht er sogar auf Extrazahlung (extra pay) für diese Überzeit. Er weiß wieder nicht, daß diese Extrazahlung ebensoviel unbezahlte Arbeit einschließt, wie der Preis der gewöhnlichen Arbeitsstunde. Z.B. der Preis einer Stunde des zwölfstündigen Arbeitstags ist 3 d., das Wertprodukt von $\frac{1}{2}$ Arbeitsstunde, während der Preis der überzeitigen Arbeitsstunde 4 d., das Wertprodukt von $\frac{2}{3}$ Arbeitsstunde. Im ersten Fall eignet sich der Kapitalist von einer Arbeitsstunde die Hälfte, im andern $\frac{1}{3}$ ohne Zahlung an.

Question 1122 *What does Marx mean when he says in 690:1/o that “the category of surplus-value does not exist for the capitalist”?* 2013fa, 2011fa.

21. Piece Wages

1. [Piece Wage is Simply a Form of Time Wage]

The first brief paragraph makes a claim which will be elaborated and supported in the next four paragraphs (about one page of text).

551:1 The piece-wage is nothing but a transmuted form of the time-wage just as the time-wage is a transmuted form of the value or price of labor-power.

574:1 Der Stücklohn ist nichts als *verwandelte Form des Zeitlohns*, wie der Zeitlohn die verwandelte Form des Wertes oder Preises der Arbeitskraft.

↑ Despite this comparison, the step from time-wages to piece-wages is not as big and mystifying as that from the value of labor-power to time-wages. I prefer therefore the following formulation from *Results*, 123:1/o, in which the piece wage is a *determinate* rather than a *transmuted* form of the time wage:

Hence, the *piece wage* is nothing but a *determinate form* of the time wage. The time wage is, for its part, only a changed form for the *value of the labor-power* ...

Der Stücklohn ist also nichts als eine *bestimmte Form des Zeitlohns*, der seinerseits nur die verwandelte Form für den *Wert des Arbeitsvermögens* ...

1.a. [Piece Wage Not a Payment for the Product of Labor]

↓ Before saying what the piece wage is, Marx emphasizes what is *not*: the piece wage is not a payment for the product of the labor, although at first glance it looks like one:

551:2 In piece-wages it seems at first sight as if the use-value bought from the worker is not his labor-power as it actually functions, living labor, but labor already objectified in the product. It also seems as if the price of this labor is determined not, as with time-wages, by the fraction $\frac{\text{daily value of labor-power}}{\text{working day of a given number of hours}}$ but by the producer's capacity for work.⁴⁵

574:2 Beim Stücklohn sieht es auf den ersten Blick aus, als ob der vom Arbeiter verkaufte Gebrauchswert nicht die Funktion seiner Arbeitskraft sei, lebendige Arbeit, sondern bereits im Produkt vergegenständlichte Arbeit, und als ob der Preis dieser Arbeit nicht wie beim Zeitlohn durch die Bruchzahl $\frac{\text{Tageswert der Arbeitskraft}}{\text{Arbeitstag von gegebener Stundenzahl}}$, sondern durch die Leistungsfähigkeit des Produzenten bestimmt werde.⁴⁵

↑ Of course, only someone well versed in Marxist theory would think that time wages are determined by the fraction $\frac{\text{daily value of labor-power}}{\text{working day of a given number of hours}}$ (and therefore not determined by the capability of the worker), but the point here is that the piece wage form reinforces the same mystification that was the subject of chapter Nineteen.

Footnote 45 illustrates exactly this mystified point of view:

⁴⁵ 'The system of piece-work illustrates an epoch in the history of the working-man; it is halfway between the position of the mere day-laborer depending upon the will of the capitalist

⁴⁵ „Das System der Stückarbeit kennzeichnet eine Epoche in der Geschichte des Arbeiters; es steht in der Mitte zwischen der Stellung des einfachen Tagelöhners, der vom Willen des Kapi-

1. *[Piece Wage is Simply a Form of Time Wage]*

and the co-operative artisan, who in the not distant future promises to combine the artisan and the capitalist in his own person. Piece-workers are in fact their own masters, even whilst working upon the capital of the employer' (John Watts, *Trade Societies and Strikes, Machinery and Co-operative Societies*, Manchester, 1865, pp. 52-3). I quote this little work because it is a veritable gutter full of long-decayed and apologetic commonplaces. The same Mr. Watts previously dabbled in Owenism, and published in 1842 another pamphlet, *Facts and Fictions of Political Economy*, in which among other things he declared that 'property is robbery'. But that is already in the distant past.

The next two paragraphs give three pieces of empirical evidence inconsistent with the theory that piece wages are a payment for the product of labor. (1) The same labor is under some circumstances paid a piece wage, and under others a time wage.

The confidence that trusts in this, the mere appearance of things, ought to receive an initial severe shock from the fact that both forms of wages exist side by side, at the same time, in the same branches of industry. For example,

'the compositors of London, as a general rule, work by the piece, time-work being the exception while those in the country work by the day, the exception being work by the piece. The shipwrights of the port of London work by the job or piece, while those of all other ports work by the day.'⁴⁶

⁴⁶ T. J. Dunning, *Trades' Unions and Strikes*, London, 1860, p. 22.

↓ (2) One can even find piece-wages and time-wages coexisting in the same shop for the same labor:

In the same saddlery shops of London, often for the same work, piece-wages are paid to Frenchmen, and time-wages are paid to Englishmen.

talisten abhängig ist, und dem genossenschaftlichen Handwerker, der in nicht ferner Zukunft in seiner Person den Handwerker und Kapitalisten zu vereinigen verspricht. Stückerbeiter sind tatsächlich ihre eigenen Meister, auch wenn sie am Kapital des Unternehmers arbeiten.“ (John Watts, „*Trade Societies and Strikes, Machinery and Co-operative Societies*“, Manchester 1865, p. 52, 53.) Ich zitiere dies Schriftchen, weil es eine wahre Gosse aller längst verfaulten, apologetischen Gemeinplätze. Derselbe Herr Watts machte früher in Owenismus und publizierte 1842 ein andres Schriftchen: „*Facts and Fictions of Political Economy*“, worin er u.a. Property für Robbery erklärt. Es ist schon lange her.

574:3/o Zunächst müßte die Zuversicht, die an diesen Schein glaubt, bereits stark erschüttert werden durch die Tatsache, daß beide Formen des Arbeitslohns zur selben Zeit in denselben Geschäftszweigen nebeneinander bestehn. Z.B.

„Die Setzer von London arbeiten in der Regel nach Stücklohn, während Zeitlohn bei ihnen die Ausnahme bildet. Umgekehrt bei den Setzern in den Provinzen, wo der Zeitlohn die Regel und der Stücklohn die Ausnahme. Die Schiffszimmerleute im Hafen von London werden nach Stücklohn bezahlt, in allen anderen englischen Häfen nach Zeitlohn.“⁴⁶

⁴⁶ T. J. Dunning, „*Trade's Unions and Strikes*“, Lond. 1860, p. 22.

575:1 In denselben Londoner Sattlerwerkstätten wird oft für dieselbe Arbeit den Franzosen Stücklohn und den Engländern Zeitlohn gezahlt.

Question 1123 *Why did some London workshops pay, for the same labor, time wages to Englishmen and piece wages to Frenchmen?* 2013fa, 2010fa.

↓ (3) In factories, time wages are the exception only used for certain kinds of labor not suitable for piece wages.

In the actual factories, where piece-wages are the general rule, certain specific operations have to be excepted from this form

In den eigentlichen Fabriken, wo Stücklohn allgemein vorherrscht, entziehn sich einzelne Arbeitsfunktionen aus technischen

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of evaluation on technical grounds, and they are therefore paid by time-wages.⁴⁷

⇓ Footnote: this ambiguity in form makes fraud possible.

⁴⁷ Here is how the simultaneous coexistence of these two forms of wage favors cheating on the part of the manufacturers: 'A factory employs 400 people, the half of which work by the piece, and have a direct interest in working longer hours. The other 200 are paid by the day, work equally long with the others, and get no more money for their overtime ... The work of these 200 people for half an hour a day is equal to one person's work for 50 hours, or 5/6 of one person's labor in a week, and is a positive gain to the employer' (Reports of the Inspectors of Factories ... 31 October 1860, p. 9). 'Over-working to a very considerable extent still prevails; and, in most instances, with that security against detection and punishment which the law itself affords. I have in many former reports shown ... the injury to work-people who are not employed on piece-work, but receive weekly wages' (Leonard Horner, in Reports of the Inspectors of Factories ... 30 April 1859, pp. 8–9).

Gründen dieser Messung und werden daher nach Zeitlohn gezahlt.⁴⁷

⁴⁷ Wie das gleichzeitige Nebeneinander dieser zwei Formen des Arbeitslohns Fabrikantenprellereien begünstigt: „Eine Fabrik beschäftigt 400 Leute, von welchen die Hälfte im Stücklohn arbeitet und ein unmittelbares Interesse daran hat, länger zu arbeiten. Die anderen 200 werden pro Tag bezahlt, arbeiten ebenso lang wie die anderen, aber erhalten kein Geld für die Überstunden ... Die Arbeit dieser 200 Leute während einer halben Stunde täglich ist gleich der Arbeit einer Person während 50 Stunden oder 5/6 der wöchentlichen Arbeitsleistung einer Person und stellt einen handgreiflichen Gewinn für den Unternehmer dar.“ („Reports of Insp. of Fact., 31st October 1860“, p. 9.) „Überstunden herrschen noch immer in beträchtlichem Umfange vor; und in den meisten Fällen mit der Sicherheit gegen Entdeckung und Bestrafung, die das Gesetz selbst gewährt. Ich habe in vielen früheren Berichten aufgezeigt ... welches Unrecht an allen Arbeitern begangen wird, die nicht Stücklohn, sondern Wochenlohn erhalten.“ (Leonard Horner in „Reports of Insp. of Fact., 30th April 1859“, p. 8, 9.)

Question 1124 *At first sight, the piece-wage seems to indicate that the worker sells the product of his labor to the capitalist. Which evidence does Marx give to support his claim that this appearance is false and that the piece-wage is only a transmuted form of time-wages?* [2013fa](#), [2012fa](#).

Question 1125 *How does the coexistence of time-wages and piece-wages enable the capitalist to cheat?* [2013fa](#), [2011fa](#), [2008fa](#), [2008SP](#).

⇓ Marx concludes from this that these two kinds of wages can only be two different forms of paying the price of labor-power. He adds the remark that the difference in the form of wages does not change their essence, although different forms may be more or less advantageous for the development of capitalist production.

However, it is in itself obvious that the difference in the form of wage payments in no way alters the essential nature of wages, although the one form may be more favourable to the development of capitalist production than the other.

An und für sich ist es jedoch klar, daß die Formverschiedenheit in der Auszahlung des Arbeitslohns an seinem Wesen nichts ändert, obgleich die eine Form der Entwicklung der kapitalistischen Produktion günstiger sein mag als die andre.

2. [Characteristic Features of Piece Wages]

Marx will now discuss aspects in which piece wages are similar or differ from time wages.

2.a. [Quantitative Determination of Piece Wages]

The essence underlying piece wages is identical to that underlying time wages, namely, the value of labor-power. Piece wages are *not* a payment for the value of the piece. Rather, the magnitude of piece wages can be derived from the value of labor-power in a very similar manner to that of time wages.

Let the ordinary working day contain 12 hours, of which 6 are paid, 6 unpaid. Let its value-product be \$1.44; the value product of one hour of labor will therefore be 12 cents. Let us suppose that, as the result of experience, a worker, working with the average amount of intensity and skill, and therefore devoting to the production of an article only the amount of labor-time socially necessary, produces, in the course of 12 hours, twenty-four pieces, either distinct products or measurable parts of some integral construction. The value of these twenty-four pieces, after we have subtracted the amount of constant capital contained in them, will be \$1.44, the value of a single piece will be 6 cents. The worker receives 3 cents per piece, and thus earns 72 cents in 12 hours.

575:2 Der gewöhnliche Arbeitstag betrage 12 Stunden, wovon 6 bezahlt, 6 unbezahlt. Sein Wertprodukt sei 6 sh., das einer Arbeitsstunde daher 6 d. Es stelle sich erfahrungsmäßig heraus, daß ein Arbeiter, der mit dem Durchschnittsgrad von Intensität und Geschick arbeitet, in der Tat also nur die gesellschaftlich notwendige Arbeitszeit zur Produktion eines Artikels verwendet, 24 Stücke, ob diskret, oder meßbare Teile eines kontinuierlichen Machwerks, in 12 Stunden liefert. So ist der Wert dieser 24 Stücke, nach Abzug des in ihnen enthaltenen konstanten Kapitaleils, 6 sh. und der Wert des einzelnen Stücks 3 d. Der Arbeiter erhält per Stück 1 1/2 d. und verdient so in 12 Stunden 3 sh.

↑ I.e., the result is the same as in the time wage example on p. , half the working-day is unpaid. ↓ And as with time wages, the specifics of the allocation are indeterminate:

Just as, with time-wages, it does not matter whether we assume that the worker works 6 hours for himself and 6 hours for the capitalist, or half of every hour for himself, and the other half for the capitalist, so here it does not matter whether we say that each individual piece is half paid for, and half unpaid for, or that the price of only twelve of the pieces is the equivalent of the value of the labor-power, while in the other twelve pieces surplus-value is incorporated.

Wie es beim Zeitlohn gleichgültig ist, ob man annimmt, daß der Arbeiter 6 Stunden für sich und 6 für den Kapitalisten, oder von jeder Stunde die eine Hälfte für sich und die andere für den Kapitalisten arbeitet, so auch hier, ob man sagt, jedes einzelne Stück sei halb bezahlt und halb unbezahlt, oder der Preis von 12 Stücken ersetze nur den Wert der Arbeitskraft, während in den 12 andern sich der Mehrwert verkörpere.

↑ The above calculation showed that the piece-wage of a piece differs from the value added to that piece through labor. ↓ This is the same “irrationality” (as Marx calls it, although he uses the German word *irrationell*, not *irrational*) that exists with time-wages, see 539:3.

The form of piece-wages is just as irrational as that of time wages. While, in our example, two pieces of a commodity, after subtraction of the value of the means of production consumed in them, are worth 12 cents, as the product of one hour of labor, the worker receives for them a price of

576:1 Die Form des Stücklohns ist ebenso irrationell als die des Zeitlohns. Während z.B. zwei Stück Ware, nach Abzug des Werts der in ihnen aufgezehrten Produktionsmittel, als Produkt einer Arbeitsstunde 6 d. wert sind, erhält der Arbeiter für sie einen Preis von 3 d.

21. Piece Wages

6 cents.

↑ This irrationality consists in the fact that for creating a value of 12 cents, the worker receives a piece wage of 6 cents. ↓ One should not be surprised about this discrepancy. The piece wage does not even try to measure the value of the piece.

In fact, piece-wages are not an immediate expression of a value relation. They are not involved with measuring the value of the piece by the labor-time incorporated in it. Rather the reverse: they are involved with measuring the labor expended by the worker by the number of pieces he has produced. In time-wages the labor is measured by its immediate duration, in piece-wages by the quantity of products in which the labor has become embodied during a given time.⁴⁸ The price of labor-time itself is finally determined by this equation: value of a day of labor = daily value of labor-power. The piece-wage is therefore only a modified form of the time-wage.

Der Stücklohn drückt unmittelbar in der Tat kein Wertverhältnis aus. Es handelt sich nicht darum, den Wert des Stücks durch die in ihm verkörperte Arbeitszeit zu messen, sondern umgekehrt die vom Arbeiter verausgabte Arbeit durch die Zahl der von ihm produzierten Stücke. Beim Zeitlohn mißt sich die Arbeit an ihrer unmittelbaren Zeitdauer, beim Stücklohn am Produktenquantum, worin Arbeit während bestimmter Zeitdauer verdichtet.⁴⁸ Der Preis der Arbeitszeit selbst ist schließlich bestimmt durch die Gleichung: Wert der Tagesarbeit = Tageswert der Arbeitskraft. Der Stücklohn ist also nur eine modifizierte Form des Zeitlohns.

In the piece wage, the output is not measured by labor, but labor is measured by the output.

⁴⁸ 'Wages can be measured in two ways: either by the duration of the labor, or by its product' (Abregé elementaire des principes de l'economie politique, Paris, 1796, p. 32). The author of this anonymous work is G. Garnier.

⁴⁸ „Der Lohn kann auf zwei Arten gemessen werden; entweder an der Dauer der Arbeit oder an ihrem Produkt“ („Abrégé élémentaire des principes de l'Écon. Pol.“, Paris 1796, p. 32.) Verfasser dieser anonymen Schrift: G. Garnier.

Question 1127 What does Marx mean when he says in 693:2/o “piece-wages are not an immediate expression of a value relation”? 2012fa, 2011fa.

Question 1128 Why is the form of piece wage just as irrational as that of time wages? 2012fa, 2010fa, 2009fa, 2008fa.

After discussing the quantity of piece wages, Marx turns to the characteristic peculiarities which the piece wage obtains from its *form*.

Let us now look a little more closely at the characteristic peculiarities of piece-wages.

576:2 Betrachten wir nun etwas näher die charakteristischen Eigentümlichkeiten des Stücklohns.

2.b. [Built-In Quality Control (and Wage Theft)]

The most striking characteristic of piece wages is that quality control of the product is built in:

The quality of the labor is here controlled by the work itself which must be of good average quality if the piece-price is to be paid in full.

576:3 Die Qualität der Arbeit ist hier durch das Werk selbst kontrolliert, das die durchschnittliche Güte besitzen muß, soll der Stückpreis voll bezahlt werden.

↓ The flip side of this: piece wage can be used for fraudulent infringements on wages:

2. [Characteristic Features of Piece Wages]

Piece-wages become, from this point of view, the most fruitful source of wage theft and capitalist cheating.

Der Stücklohn wird nach dieser Seite hin zu fruchtbarster Quelle von Lohnabzügen und kapitalistischer Prellerei.

Question 1129 *Explain how piece wages can become a “most fertile source for wage theft and capitalist cheating.” 2012fa, 2010fa, 2009fa, 2008fa, 2008SP.*

2.c. [Controls Intensity of Labor, Screens Out the Slow]

Not only the quality of the end product, also the intensity of labor can be controlled by piece wages:

Piece wages provide to the capitalist an exact measure of the intensity of labor. Only the labor-time which is embodied in a quantity of commodities laid down in advance and fixed by experience counts as socially necessary labor-time and is paid as such.

576:4 Er bietet den Kapitalisten ein ganz bestimmtes Maß für die Intensität der Arbeit. Nur Arbeitszeit, die sich in einem vorher bestimmten und erfahrungsmäßig festgesetzten Warenquantum verkörpert, gilt als gesellschaftlich notwendige Arbeitszeit und wird als solche bezahlt.

↓ Example: products are named by the time they require.

In the larger workshops of the London tailors, therefore, a certain piece of work, a waistcoat for instance, is called an hour, or half an hour, the hour being valued at 6d. Practice determines the size of the average product of one hour.

In den größeren Schneiderwerkstätten Londons heißt daher ein gewisses Stück Arbeit, z.B. eine Weste usw., Stunde, halbe Stunde usw., die Stunde zu 6 d. Aus der Praxis ist bekannt, wieviel das Durchschnittsprodukt einer Stunde.

↓ What about new situations with no established past practice?

With new fashions, repairs, etc. a contest arises between the employer and the worker as to whether a particular piece of work is one hour, and so on, until here also experience decides.

Bei neuen Moden, Reparaturen usw. entsteht Streit zwischen Anwender und Arbeiter, ob ein bestimmtes Arbeitsstück = einer Stunde usw., bis auch hier die Erfahrung entscheidet.

↓ Example where workers who are too slow lose their jobs.

Similarly in the London furniture workshops, etc. If the worker cannot provide labor of an average degree of efficiency, and if he cannot therefore supply a certain minimum of work per day, he is dismissed.⁴⁹

Ähnlich in den Londoner Möbelschreinereien usw. Besitzt der Arbeiter nicht die durchschnittliche Leistungsfähigkeit, kann er daher ein bestimmtes Minimum vom Tagwerk nicht liefern, so entläßt man ihn.⁴⁹

↑ The workers therefore do not have the option to work more slowly in exchange for the lower total wage obtained by the piece wage calculation. ↓ Footnote: the worker is squeezed between fines for bad quality and threat of dismissal for insufficient quantity.

⁴⁹ ‘So much weight of cotton is delivered to him’ (the spinner) ‘and he has to return by a certain time, in lieu of it, a given weight of twist or yarn, of a certain degree of fineness, and he is paid so much per pound for all that he so returns. If his work is defective in quality, the penalty falls on him, if less in quantity than the minimum fixed for a given time he is dismissed and an abler operative procured’ (Ure, op. cit., pp. 316-17).

⁴⁹ „Es wird ihm“ (dem Spinner) „ein bestimmtes Gewicht Baumwolle übergeben, und er muß dafür in einer gewissen Zeit ein bestimmtes Gewicht an Twist oder Garn von einem gewissen Feinheitsgrad liefern und erhält für jedes so beschaffene Pfund soundso viel. Ist die Arbeit von mangelhafter Qualität, so wird er bestraft; ist das Quantum geringer als das für eine bestimmte Zeit festgesetzte Minimum, so wird er entlassen und

ein tüchtigerer Arbeiter eingestellt.“ (Ure, l.c. p. 316, 317.)

2.d. [Part of Supervision Becomes Superfluous]

Since piece wages make supervision superfluous, house work and a hierarchy of exploitation become possible:

Since the quality and intensity of the work are here controlled by the very form of the wage, superintendence of labor becomes to a great extent superfluous. Piece-wages therefore form the basis for the modern ‘domestic labor’ we described earlier, as well as for a hierarchically organized system of exploitation and oppression. The latter has two fundamental forms.

Marx does not discuss domestic labor here (he did that in 468:5/o) but elaborates on the hierarchy of exploitation (or cascading exploitation). ↓ In its first form it interposes a middleman between capitalist and worker.

On the one hand piece-wages make it easier for parasites to interpose themselves between the capitalist and the wage-laborer, thus giving rise to the ‘subletting of labor’. The profits of these middlemen come entirely from the difference between the price of labor which the capitalist pays, and the part of that price they actually allow the worker to receive.⁵⁰ In England, this system is called, characteristically, the ‘sweating system’.

⁵⁰ ‘It is when work passes through several hands, each of which is to take its share of profits, while only the last does the work, that the pay which reaches the workwoman is miserably disproportioned’ (Children’s Employment Commission, Second Report, p. lxx, n. 424).

Second form: the worker himself employs helpers:

On the other hand, piece-wages allow the capitalist to make a contract for so much per piece with the most important worker—in manufacture, with the chief of some group, in mines with the extractor of the coal, in the factory with the actual machine-worker—at a price for which this man himself undertakes the enlisting and the payment of his assistants. Here the exploitation of the

577:1 Da Qualität und Intensität der Arbeit hier durch die Form des Arbeitslohns selbst kontrolliert werden, macht sie großen Teil der Arbeitsaufsicht überflüssig. Sie bildet daher sowohl die Grundlage der früher geschilderten modernen Hausarbeit als eines hierarchisch gegliederten Systems der Exploitation und Unterdrückung. Das letztere besitzt zwei Grundformen.

Der Stücklohn erleichtert einerseits das Zwischenschieben von Parasiten zwischen Kapitalist und Lohnarbeiter, Unterverpachtung der Arbeit (subletting of labour). Der Gewinn der Zwischenpersonen fließt ausschließlich aus der Differenz zwischen dem Arbeitspreis, den der Kapitalist zahlt, und dem Teil dieses Preises, den sie dem Arbeiter wirklich zukommen lassen.⁵⁰ Dies System heißt in England charakteristisch das „Sweating-System“ (Ausschweißungssystem).

⁵⁰ „Wenn das Arbeitsprodukt durch viele Hände geht, auf die alle ein Teil des Profits kommt, während nur das letzte Paar Hände die Arbeit verrichtet, dann geschieht es, daß die Bezahlung, welche schließlich die Arbeiterin erreicht, jämmerlich unangemessen ist.“ („Child. Empl. Comm. II. Rep.“, p. LXX, n. 424.)

Andrerseits erlaubt der Stücklohn dem Kapitalisten, mit dem Hauptarbeiter—in der Manufaktur mit dem Chef einer Gruppe, in den Minen mit dem Ausbrecher der Kohle usw., in der Fabrik mit dem eigentlichen Maschinenarbeiter—einen Kontrakt für soviel per Stück zu schließen, zu einem Preis, wofür der Hauptarbeiter selbst die Anwerbung und Zahlung seiner Hilfsarbeiter über-

worker by capital takes place through the medium of the exploitation of one worker by another.⁵¹

⁵¹ Even the apologist Watts remarks: 'It would be a great improvement to the system of piece-work, if all the men employed on a job were partners in the contract, each according to his abilities, instead of one man being interested in over-working his fellows for his own benefit' (op. cit., p. 53). On the vile nature of the piece-work system, cf. Children's Employment Commission, Third Report, p. 66, n. 22, p. 11, n. 124, p. xi, n. 13, 53, 59, etc.

nimmt. Die Exploitation der Arbeiter durch das Kapital verwirklicht sich hier vermittelst der Exploitation des Arbeiters durch den Arbeiter.⁵¹

⁵¹ Selbst der apologetische Watts bemerkt: „Es wäre eine große Verbesserung des Stücklohnsystems, wenn alle an einem Stück Arbeit Beschäftigten Teilhaber am Vertrag wären, jeder entsprechend seinen Fähigkeiten, statt daß ein Mann daran interessiert ist, seine Kameraden für seinen eigenen Vorteil abzurackern.“ (l.c. p. 53.) Über die Gemeinheiten dieses Systems vgl. „Child. Emp. Comm. Rep. III“, p. 66, n. 22; p. 11, n. 124; p. XI, n. 13, 53, 59 usw.

2.e. [Tendencies to Intensify Labor and Lengthen Hours]

Piece wages are notorious for intensifying labor:

Given the system of piece-wages, it is naturally in the personal interest of the worker that he should strain his labor-power as intensely as possible; this in turn enables the capitalist to raise the normal degree of intensity of labor more easily.^{51a}

^{51a} This spontaneous result is often artificially helped along, as for instance in London, in the engineering trade, where a customary trick is 'the selecting of a man who possesses superior physical strength and quickness, as the principal of several workmen, and paying him an additional rate, by the quarter or otherwise, with the understanding that he is to exert himself to the utmost to induce the others, who are only paid the ordinary wages, to keep up to him ... without any comment this will go far to explain many of the complaints of stinting the action, superior skill, and working-power, made by the employers against the men' (i.e. when they are organized in trade unions, (Dunning, op. cit., pp. 22–3). As the author of this passage is himself a worker and the secretary of a trade union, this might be taken for an exaggeration. But compare, for example, the article 'Laborer' in the 'highly respectable' Cyclopaedia of Agriculture, ed. by J. C. Morton, where the method is recommended to the farmers as aa usual and tested one.

↓ In addition, both piece wages and time wages have the tendency to prolong the work day:

Moreover, the lengthening of the working day is now in the personal interest of the

577:2/o Den Stücklohn gegeben, ist es natürlich das persönliche Interesse des Arbeiters, seine Arbeitskraft möglichst intensiv anzuspannen, was dem Kapitalisten eine Erhöhung des Normalgrads der Intensität erleichtert.^{51a}

^{51a} Diesem naturwüchsigen Resultat wird oft künstlich unter die Arme gegriffen. Z.B. im Engineering Trade von London gilt es als herkömmlicher trick, „daß der Kapitalist einen Mann von überlegener physischer Kraft und Fertigkeit zum Chef einer Arbeiteranzahl auswählt. Er zahlt ihm vierteljährlich oder in andren Terminen einen Zuschußlohn unter der Übereinkunft, alles mögliche aufzubieten, um seine Mitarbeiter, die nur den gewöhnlichen Lohn erhalten, zur äußersten Nacheiferung anzustacheln ... Ohne weiteren Kommentar erklärt dies die Kapitalistenklage über ‚Lähmung der Tätigkeit oder überlegener Geschicklichkeit und Arbeitskraft (stinting the action, superior skill and working power) durch die Trade's Unions‘.“ (Dunning, l.c. p. 22, 23.) Da der Verfasser selbst Arbeiter und Sekretär einer Trade's Union, könnte dies für Übertreibung gelten. Aber man sehe z.B. die „highly respectable“ agronomische Cyklopädie von J. Ch. Morton, Art. „Labourer“, wo diese Methode den Pächtern als probat empfohlen wird.

Es ist ebenso das persönliche Interesse des Arbeiters, den Arbeitstag zu verlängern,

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worker, since with it his daily or weekly wages rise.⁵²

⁵² 'All those who are paid by piece-work ... profit by the transgression or the legal limits of work. This observation as to the willingness to work overtime is especially applicable to the women employed as weavers and reelers' (Reports of the Inspectors of Factories ... 30 April 1858, p. 9). 'This system' (piece-work) 'so advantageous to the employer ... tends directly to encourage the young potter greatly to over-work himself during the four or five years during which he is employed in the piece-work system, but at low wages ... This is ... another great cause to which the bad constitutions of the potters are to be attributed' (Children's Employment Commission, First Report, p. xiii).

Due to these longer hours, the daily wage rises. But these longer hours at the same time have the side effect of depressing the wage per piece and even the daily wage, see in the time-wage chapter.

This brings on a reaction like that already described in time-wages, quite apart from the fact that the prolongation of the working day, even if the piece-wage remains constant, includes of necessity a fall in the price of the labor.

↑ "Even if the piece-wage remains constant": see in the time wage chapter. The additional time uses disproportionately more of their labor-power, which leads to higher reproduction costs. The price of labor itself does not fall, but it falls below the worker's reproduction cost of the labor-power.

↓ Piece wages also tend to depress wages by differentiating the wages paid for the same labor, thus inciting competition between the workers. (Time wages do not have this tendency.)

In time-wages, with few exceptions, the same wage is paid for the same function, while in piece-wages, although the price of the labor-time is measured by a definite quantity of the product, the daily or weekly wage will vary with the individual differences between the workers, one of whom will supply, within a given period, the minimum of product only, another the average, and a third more than the average. With regard to their actual income, then, there is great variety among the individual workers, according to their different degrees of skill, strength, energy and staying power.⁵³

weil damit sein Tages- oder Wochenlohn steigt.⁵²

⁵² „Alle, die im Stücklohn bezahlt werden ... haben Vorteil von einer Überschreitung der gesetzlichen Grenzen der Arbeit. Diese Bereitschaft, Überstunden zu machen, ist besonders bei den Frauen zu beobachten, die als Weberinnen und Hasplerinnen beschäftigt sind.“ („Rep. of Insp. of Fact., 30th April 1858“, p. 9.) „Dies Stücklohnsystem, so vorteilhaft für den Kapitalisten ... strebt direkt, den jungen Töpfer zu großer Überarbeit zu ermuntern, während der 4 oder 5 Jahre, worin er per Stück, aber zu niedrigem Preis, bezahlt wird. Es ist dies eine der großen Ursachen, denen die physische Degeneration der Töpfer zuzuschreiben ist.“ („Child. Empl. Comm. I. Rep.“, p. XIII.)

Es tritt damit die beim Zeitlohn bereits geschilderte Reaktion ein, abgesehen davon, daß die Verlängerung des Arbeitstags, selbst bei konstant bleibendem Stücklohn, an und für sich eine Senkung im Preise der Arbeit einschließt.

578:1/o Beim Zeitlohn herrscht mit wenigen Ausnahmen gleicher Arbeitslohn für dieselben Funktionen, während beim Stücklohn der Preis der Arbeitszeit zwar durch ein bestimmtes Produktenquantum gemessen ist, der Tags oder Wochenlohn dagegen wechselt mit der individuellen Verschiedenheit der Arbeiter, wovon der eine nur das Minimum des Produkts in einer gegebenen Zeit liefert, der andre den Durchschnitt, der dritte mehr als den Durchschnitt. In bezug auf die wirkliche Einnahme treten hier also große Differenzen ein je nach dem verschiedenen Geschick, Kraft, Energie, Ausdauer usw. der individuellen Arbeiter.⁵³

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⁵³ ‘Where the work in any trade is paid for by the piece at so much per job ... wages may very materially differ in amount ... But in work by the day there is generally an uniform rate ... recognized by both employer and employed as the standard of wages for the general run of workmen in the trade’ (Dunning, op. cit., p. 17).

⁵³ „Wo die Arbeit in irgendeinem Gewerbe nach der Stückzahl, zu soundso viel je Stück bezahlt wird ... können sich die Löhne dem Betrag nach sehr wesentlich voneinander unterscheiden ... Aber für Tagelohn besteht im allgemeinen ein einheitlicher Satz ... der vom Unternehmer und vom Arbeiter als Standardlohn für den Durchschnittsarbeiter in dem Gewerbe anerkannt wird.“ (Dunnig, l.c. p. 17.)

Question 1130 *Time wages and piece wages have opposite effects on the competition between workers. Explain.* 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2007SP.

↓ The aggregate effect for capital is the same whether they pay differential rates to the workers or not (this was first discussed in the Co-Operation chapter, p. 322:2/oo).

Of course, this does not alter the general relation between capital and wage-labor. First, the individual differences cancel each other out in the workshop as a whole, which thus supplies the average product within a given period of labor, and the total wages paid will be the average wage of that particular branch of industry. Second, the proportion between wages and surplus-value remains unaltered, since the mass of surplus labor supplied by each particular worker corresponds with the wage he receives.

Dies ändert natürlich nichts an dem allgemeinen Verhältnis zwischen Kapital und Lohnarbeit. Erstens gleichen sich die individuellen Unterschiede für die Gesamtwerkstatt aus, so daß sie in einer bestimmten Arbeitszeit das Durchschnittsprodukt liefert und der gezahlte Gesamtlohn der Durchschnittslohn des Geschäftszweigs sein wird. Zweitens bleibt die Proportion zwischen Arbeitslohn und Mehrwert unverändert, da dem individuellen Lohn des einzelnen Arbeiters die von ihm individuell gelieferte Masse von Mehrwert entspricht.

↑ Here Marx postulates a very specific relationship between surplus-value and wages: the surplus-value created by a given individual is proportional to that individual's wage. ↓ Although in the aggregate, the effects of this wage differentiation cancel each other out, wage differentiation is advantageous for capital because of the kind of individual behavior it engenders among workers: along with the worker's sense of "liberty, independence and self-control" comes also heightened competition.

But the wider scope that piece-wages give to individuality tends to develop both that individuality, and with it the worker's sense of liberty, independence and self-control, and also the competition of workers with each other. The piece-wage therefore has a tendency, while raising the wages of individuals above the average, to lower this average itself.

Aber der größere Spielraum, den der Stücklohn der Individualität bietet, strebt einerseits dahin, die Individualität und damit Freiheitsgefühl, Selbständigkeit und Selbstkontrolle der Arbeiter zu entwickeln, andererseits ihre Konkurrenz unter- und gegeneinander. Er hat daher eine Tendenz, mit der Erhebung individueller Arbeitslöhne über das Durchschnittsniveau dieses Niveau selbst zu senken.

↑ By saying that piece wages raise competition Marx brings an important positive implication of time wages: since everybody gets the same pay per hour, the level of solidarity rises. Everybody is in the same boat. (But this may also lead to tensions because of free-riding.)

21. Piece Wages

Question 1131 *Is there something wrong with the worker's sense of "liberty, independence and self-control" engendered by piece-wages?* 2012fa, 2007SP.

⇓ In situations where piece wages could not be lowered, the capitalists resort to introducing time wages.

However, where a particular rate of piece-wage has for a long time been a fixed tradition, and its lowering, therefore, has presented especial difficulties, in such exceptional cases the masters have sometimes had recourse to the forcible transformation of piece-wages into time-wages. In 1860, for instance, this action set off a big strike among the ribbon-weavers of Coventry.⁵⁴

⇑ The capitalists expect a gradual decline of piece wages, and try to erase any niche where workers manage to hold on to a part of their own product.

⁵⁴ 'The labor of the journeymen-craftsmen is regulated by the day or by the piece ... The master-craftsmen know approximately how much work a journeyman can do every day in each trade, and they often pay them in proportion to the amount of work they perform; thus the journeymen do as much work as they can, in their own interest, and without needing any further supervision' ([Richard] Cantillon, *Essai sur la nature du commerce en général*, Amsterdam, 1756, pp. 185, 202. The first edition appeared in 1755). Cantillon, from whom Quesnay, Sir James Steuart and Adam Smith have largely drawn, here already presents the piece-wage as merely a modified form of the time-wage.

The footnote ends with additional detail about Cantillon, which is a little off the subject:

⁵⁴ *cid* The French edition of Cantillon professes in its title to be a translation from the English, but the English edition, *The Analysis of Trade, Commerce, etc.*, by Philip Cantillon, late of the City of London, Merchant, is not only of later date (1759), but proves by its contents that it is a later and revised edition. For instance, in the French edition, Hume is not yet mentioned, while in the English edition, on the other hand, Petty hardly figures any longer. The English is of less theoretical significance, but it contains all kinds of details relating specifically to English commerce, bullion trade, etc. which are absent from the French text. The words on the title-page of the English edition, according to which the work is 'Taken chiefly from the manuscript of a very ingenious gentleman, deceased, and adapted, etc.', seem, therefore, a pure fiction, very customary at that time.

Wo aber bestimmter Stücklohn sich seit lange traditionell befestigt hatte und seine Herabsetzung daher besondere Schwierigkeiten bot, flüchteten die Meister ausnahmsweise auch zu seiner gewaltsamen Verwandlung in Zeitlohn. Hiergegen z.B. 1860 großer strike unter den Bandwebern von Coventry.⁵⁴

⁵⁴ „Die Arbeit der Handwerksge­sell­en regelt sich nach dem Tag oder nach dem Stück (à la journée ou à la pièce) ... Die Meister wissen unge­fähr, wieviel Werke die Arbeiter täglich in jedem métier verrichten können, und zahlen sie daher oft im Verhältnis zum Werk, das sie verrichten; so arbeiten diese Gesellen, soviel sie können, in ihrem eignen Interesse, ohne weitere Beaufsichtigung.“ (Cantillon, „*Essai sur la Nature du Commerce en Général*“, Amst. Éd. 1756, p. 185 u. 202. Die Erste Ausgabe erschien 1755). Cantillon, aus dem Quesnay, Sir James Steuart und A. Smith reichlich geschöpft haben, stellt hier also schon den Stücklohn als bloß modifizierte Form des Zeitlohns dar.

⁵⁴ *cid* Die französische Ausgabe Cantillons kündigt sich auf dem Titel als Übersetzung aus dem Englischen an, aber die englische Ausgabe: „*The Analysis of Trade, Commerce etc.*, by Philip Cantillon, late of the City of London, Merchant“, ist nicht nur späteren Datums (von 1759), sondern erweist sich durch ihren Inhalt als eine spätere Bearbeitung. So z.B. findet sich in der französischen Ausgabe Hume noch nicht erwähnt, während umgekehrt in der englischen Petty kaum mehr figuriert. Die englische Ausgabe ist theoretisch unbedeutender, enthält aber allerlei spezifisch auf englischen Handel, Bullionhandel usw. Bezügliches, was im französischen Text fehlt. Die Worte im Titel der englischen Ausgabe, wonach die Schrift „Taken chiefly from the Manuscript of a very ingenious Gentleman deceased, and adapted etc.“, scheinen daher mehr als bloße, damals sehr übliche, Fiktion.

2. [Characteristic Features of Piece Wages]

The wage structure therefore creates the tendency to prolong and intensify the working day while lowering the wages themselves. Marx does not say here where this ends, but he says in 420:3 that it leads to a state of overwork which makes further legal restrictions of the length of the working-day inevitable.

Question 1132 Which advantages and disadvantages does the form of piece-wages, compared with time wages, have for the capitalists? Which advantages and disadvantages does it have for the workers? 2013fa, 2012fa, 2010fa, 2008SP, 2007fa, 2007SP.

2.f. [Support for the Hour System]

↓ The hour system is described in .

Finally, the piece-wage is one of the chief supports of the hour-system described in the preceding chapter.⁵⁵

⁵⁵ ‘How often have we not seen many more workers taken on, in some workshops, than were needed actually to do the work? Workers are often set on in the expectation of work which is uncertain, or even completely imaginary; as they are paid piece-wages, the employers say to themselves that they run no risk, because any loss of working time will be at the expense of the workers who are unoccupied’ (H. Gregoir, *Les Typographes devant le Tribunal correctionnel de Bruxelles*, Brussels, 1865, p. 9).

Der Stücklohn ist endlich eine Hauptstütze des früher geschilderten Stundensystems.⁵⁵

⁵⁵ „Wie häufig haben wir gesehen, daß man in gewissen Werkstätten weit mehr Arbeiter einstellte, als zur Arbeit wirklich benötigt wurden? Oft nimmt man Arbeiter an in Erwartung einer noch ungewissen, manchmal sogar nur eingebildeten Arbeit: da man im Stücklohn zahlt, sagt man sich, daß man nichts riskiert, da alle verlorene Zeit zu Lasten der Unbeschäftigten geht.“ (H. Gregoir, *„Les Typographes devant le Tribunal Correctionnel de Bruxelles“*, Bruxelles 1865, p. 9.)

↑ Piece wages make it easy to introduce the hour system because they follow the principle of strict payment by labor performed, without a daily or weekly minimum pay.

Question 1133 How do piece-wages promote a lowering of the price of labor? List all mechanisms cited by Marx which have this effect.

2.g. [Epilogue: Role of Piece-Wages in the Development of Capitalism]

From what has been shown so far, it is apparent that the piece wage is the form of wage most appropriate to the capitalist mode of production.

↑ This summarizes all the special characteristics of the piece wage just discussed, from its built-in supervision to its tendencies to intensify labor and lower wages.

580:1–2 Aus der bisherigen Darstellung ergibt sich, daß der Stücklohn die der kapitalistischen Produktionsweise entsprechende Form des Arbeitslohns ist.

Question 1134 Why is piece wage the wage form most appropriate for capitalism? 2010fa, 2008SP, 2007fa, 2007SP.

↓ But this raises the question: what role did piece wages play in the development of capitalism? This historical investigation also yields empirical proof that the mechanisms developed earlier in the chapter are active.

Although by no means new—it figures officially side by side with time-wages in

Obgleich keineswegs neu—er figuriert neben dem Zeitlohn offiziell u.a. in den französi-

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the French and English labor statutes of the fourteenth century—it only conquered a larger field of action during the period of manufacture properly so-called. In the stormy youth of large-scale industry, and particularly from 1797 to 1815, it served as a lever for the lengthening of the working day and the lowering of wages. Very important material bearing on the movement of wages during that period is to be found in the two Blue Books Report and Evidence from the Select Committee on Petitions Respecting the Corn Laws (Parliamentary Session of 1813–14), and Report from the Lords' Committee, on the State of the Growth, Commerce, and Consumption of Grain, and all Laws Relating Thereto (Session of 1814–15). Here we find documentary evidence of the constant lowering of the price of labor from the beginning of the Anti-Jacobin War. In the weaving industry, for example, piece-wages had fallen so low that in spite of the very great lengthening of the working day, the daily wage was then lower than it had been before.

'The real earnings of the cotton weaver are now far less than they were; his superiority over the common laborer, which at first was very great, has now almost entirely ceased. Indeed . . . the difference in the wages of skilful and common labor is far less now than at any former period.'⁵⁶

⁵⁶ Remarks on the Commercial Policy of Great Britain, London, 1815, p. 48.

After this summary paragraph, several individual items are discussed in more detail. ↓
First the effects of piece wages in agriculture (i.e., no machinery, no limitation of the length of the working-day):

How little the increased intensity and extension of labor through piece-wages benefited the agricultural proletariat can be seen from the following passage from a pamphlet in favour of the landlords and farmers:

'By far the greater part of agricultural operations is done by people, who are hired for the day or on piece-work. Their weekly wages are about 12 shillings, and although it may be assumed that a man earns on piece-work under the greater stimulus to labor, 1 shilling, or per-

schen und englischen Arbeiterstatuten des vierzehnten Jahrhunderts—, gewinnt er doch erst größten Spielraum während der eigentlichen Manufakturperiode. In der Sturm- und Drangperiode der großen Industrie, namentlich von 1797 bis 1815, dient er als Hebel zur Verlängerung der Arbeitszeit und Herabsetzung des Arbeitslohns. Sehr wichtiges Material für die Bewegung des Arbeitslohns während jener Periode findet man in den Blaubüchern: „Report and Evidence from the Select Committee on Petitions respecting the Corn Laws“ (Parlamentssession 1813/14) und „Reports from the Lords' Committee, on the state of the Growth, Commerce, and Consumption of Grain, and all Laws relationg thereto“. (Session 1814/15.) Man findet hier den dokumentarischen Nachweis für die fortwährende Senkung des Arbeitspreises seit dem Beginn des Antijakobinerkriegs. In der Weberei z.B. war der Stücklohn so gefallen, daß trotz des sehr verlängerten Arbeitstags der Taglohn jetzt niedriger stand als vorher.

„Die reale Einnahme des Webers ist sehr viel weniger als früher: seine Superiorität über den gewöhnlichen Arbeiter, die erst sehr groß war, ist fast ganz verschwunden. In der Tat, der Unterschied in den Löhnen geschickter und gewöhnlicher Arbeit ist jetzt viel unbedeutender als während irgendeiner früheren Periode.“⁵⁶

⁵⁶ „Remarks on the Commercial Policy of Great Britain“, London 1815, p. 48.

580:3–4 Wie wenig die mit dem Stücklohn gesteigerte Intensität und Ausdehnung der Arbeit dem ländlichen Proletariat fruchteten, zeige folgende einer Parteischrift für Landlords und Pächter entlehnte Stelle:

„Bei weitem der größere Teil der Agrikulturoperationen wird durch Leute verrichtet, die für den Tag oder auf Stückwerk gedungen sind. Ihr Wochenlohn beträgt ungefähr 12 sh.; und obgleich man voraussetzen mag, daß ein Mann bei Stücklohn, unter dem größeren Ar-

3. [Piece Wages and Changes in Productivity]

haps 2 shillings more than on weekly wages, yet it is found, on calculating his total income, that his loss of employment, during the year, outweighs this gain ... Further, it will generally be found that the wages of these men bear a certain proportion to the price of the necessary means of subsistence, so that a man with two children is able to bring up his family without recourse to parish relief.⁵⁷

beitssporn, 1 sh. oder vielleicht 2 sh. mehr verdient als beim Wochenlohn, so findet man dennoch, bei Schätzung seiner Gesamteinnahme, daß sein Verlust an Beschäftigung im Lauf des Jahrs diesen Zuschuß aufwiegt ... Man wird ferner im allgemeinen finden, daß die Löhne dieser Männer ein gewisses Verhältnis zum Preis der notwendigen Lebensmittel haben, so daß ein Mann mit zwei Kindern fähig ist, seine Familie ohne Zuflucht zur Pfarreunterstützung zu erhalten.“⁵⁷

⁵⁷ A Defence of the Landowners and Farmers of Great Britain, London, 1814. pp. 4–5.

Malthus remarked at that time, with reference to the facts published by Parliament: ‘I confess that I see, with misgiving, the great extension of the practice of piece-wage. Really hard work during 12 or 14 hours of the day, or for any longer time, is too much for any human being.’⁵⁸

⁵⁷ „A Defence of the Landowners and Farmers of Great Britain“, Lond. 1814, p. 4, 5.

581:1–2 Malthus bemerkte damals mit Bezug auf die vom Parlament veröffentlichten Tatsachen: „Ich gestehe, ich sehe mit Mißvergnügen die große Ausdehnung der Praxis des Stücklohns. Wirklich harte Arbeit während 12 oder 14 Stunden des Tags, für irgend längere Zeitperioden, ist zuviel für ein menschliches Wesen.“⁵⁸

⁵⁸ Malthus, Inquiry into the Nature and Progress of Rent, London, 1815 [p. 49, note].

⁵⁸ Malthus, „Inquiry into the Nature etc. of Rent“, London 1815, [p. 49, Note].

↓ Next a brief but interesting remark about the effects of the Factory Acts:

In those workshops which are subject to the Factory Act, the piece-wage becomes the general rule, because there capital can increase the yield of the working day only by intensifying labor.⁵⁹

581:3 In den dem Fabrikgesetz unterworfenen Werkstätten wird Stücklohn allgemeine Regel, weil das Kapital dort den Arbeitstag nur noch intensiv ausweiten kann.⁵⁹

⁵⁹ ‘Those who are paid by piece-work ... constitute probably four-fifths of the workers in the factories’ (Reports of the Inspectors of Factories ... 30 April 1858, p. 9).

⁵⁹ „Die Arbeiter auf Stücklohn bilden wahrscheinlich 4/5 aller Arbeiter in den Fabriken.“ („Reports of Insp. of Fact. for 30th April 1858“, p. 9.)

3. [Piece Wages and Changes in Productivity]

↓ The mathematics of it is clear.

Changes in the productivity of labor mean that the same quantity of a given product represents an amount of labor-time which varies. Therefore, the piece-wage also varies, for it is the expression of the price of a definite amount of labor-time. In our earlier example, twenty-four pieces were produced in 12 hours, while the value-product of the 12 hours was \$1.44, the daily value of the labor-power was 72 cents, the

581:4–582:1 Mit der wechselnden Produktivität der Arbeit stellt dasselbe Produktenquantum wechselnde Arbeitszeit dar. Also wechselt auch der Stücklohn, da er Preisausdruck einer bestimmten Arbeitszeit. In unserem obigen Beispiel wurden in 12 Stunden 24 Stück produziert, während das Wertprodukt der 12 Stunden 6 sh. war, der Tageswert der Arbeitskraft 3 sh., der Preis der Arbeitsstunde 3 d. und der Lohn für ein Stück

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price of an hour of labor was 6 cents, and the wage for one piece was 3 cents. Half an hour of labor was absorbed in one piece. If the productivity of labor is now doubled, so that the same working day supplies forty-eight pieces instead of twenty-four, and all other circumstances remain unchanged, then the piece-wage falls from 3 cents to 1 1/2 cents, as every piece now only represents 1/4 instead of 1/2 a working hour. 24×3 cents = 72 cents, and, similarly, $48 \times 1\frac{1}{2}$ cents = 72 cents. In other words, the piece-wage is lowered in the same proportion as the number of pieces produced in the same time rises,⁶⁰ and therefore in the same proportion as the amount of labor-time employed on the same piece falls.

⁶⁰ ‘The productive power of his spinning-machine is accurately measured, and the rate of pay for work done with it decreases with though not as, the increase of its productive power’ (Ure, op. cit., p. 317). Ure himself later contradicts this last apologetic phrase. He admits that, for example, a lengthening of the mule causes some increase in the quantity of labor required. The amount of labor does not, therefore, diminish in the same ratio as its productivity increases. Further: ‘By this increase the productive power of the machine will be augmented one-fifth. When this event happens the spinner will not be paid at the same rate for work done as he was before, but as that rate will not be diminished in the ratio of one-fifth, the improvement will augment his money earnings for any given number of hours of work,’ but ... ‘the foregoing statement requires a certain modification ... The spinner has to pay something additional for juvenile aid out of his additional sixpence’ (ibid., p. 321). Improvements in machinery also ‘displace a portion of adults’ (ibid.) and this certainly does not tend to raise wages.

1 1/2 d. In einem Stück war 1/2 Arbeitsstunde eingesaugt. Liefert derselbe Arbeitstag nun etwa infolge verdoppelter Produktivität der Arbeit 48 Stück statt 24, und bleiben alle andern Umstände unverändert, so sinkt der Stücklohn von 1 1/2 d. auf 3/4 d., da jedes Stück jetzt nur noch 1/4 statt 1/2 Arbeitsstunde darstellt. $24 \times 1\frac{1}{2}$ d. = 3 sh. und ebenso $48 \times 3/4$ d. = 3 sh. In anderen Worten: Der Stücklohn wird in demselben Verhältnis heruntergesetzt, worin die Zahl der während derselben Zeit produzierten Stücke wächst,⁶⁰ also die auf dasselbe Stück verwandte Arbeitszeit abnimmt.

⁶⁰ „Die Produktivkraft seiner Spinnmaschine wird genau gemessen und die Bezahlung für die mit ihr geleistete Arbeit vermindert sich *mit*, wenn auch nicht *entsprechend* der Zunahme ihrer Produktivkraft.“ (Ure, l.c. p. 317.) Letztere apologetische Wendung hebt Ure selbst wieder auf. Er gibt zu, daß bei einer Verlängerung der Mule z.B. eine zusätzliche Arbeit aus der Verlängerung entspringt. Die Arbeit nimmt also nicht in dem Maße ab, worin ihre Produktivität wächst. Ferner: „Durch diese Verlängerung wird die Produktivkraft der Maschine um ein Fünftel gesteigert. Daraufhin wird der Spinner nicht mehr zu demselben Satz für geleistete Arbeit bezahlt wie zuvor, aber weil dieser Satz nicht im Verhältnis von einem Fünftel vermindert wird, erhöht die Verbesserung seinen Geldverdienst für jede gegebene Zahl von Arbeitsstunden“—aber, aber—„die vorhergehende Feststellung erfordert eine gewisse Einschränkung ... der Spinner hat von seinem zusätzlichen halben Schilling etwas für zusätzliche jugendliche Hilfskräfte zu zahlen, und außerdem werden Erwachsene verdrängt“ (l.c. p. 320, 321), was keineswegs eine Tendenz zur Steigerung des Arbeitslohns hat.

Question 1135 *How do piece-wages change if productivity rises?* 2011fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP.

↓ The practical implementation of these changes leads to frictions:

This change in the piece-wage, so far purely nominal, leads to constant struggles between the capitalist and the worker, either

Dieser Wechsel des Stücklohns, soweit rein nominell, ruft beständige Kämpfe zwischen Kapitalist und Arbeiter hervor. Entweder,

3. [Piece Wages and Changes in Productivity]

because the capitalist uses it as a pretext for actually lowering the price of labor, or because an increase in the productivity of labor is accompanied by an increase in its intensity, or because the worker takes the outward appearance of piecewages seriously, i.e. he thinks his product is being paid for and not his labor-power, and he therefore resists any reduction of wages which is not accompanied by a reduction in the selling price of the commodity.

‘The operatives ... carefully watch the price of the raw material and the price of manufactured goods, and are thus enabled to form an accurate estimate of their master’s profits.’⁶¹

⁶¹ H. Fawcett, *The Economic Position of the British Laborer*, Cambridge and London, 1865, p. 178.

↑ The shared illusion that they are paid for their product, not their labor-power, gives the workers enough cohesion that they can fight against a reduction of these wages. ↓ But the outraged capitalists noisily put them in their place.

The capitalist rightly rejects such claims as being gross errors as to the nature of wage-labor.⁶² He cries out against this presumptuous attempt to lay taxes on the progress of industry, and declares roundly that the productivity of labor does not concern the worker in the least.⁶³

⁶² In the *London Standard* of 26 October 1861, there is a report of proceedings taken by the firm of John Bright and Co. before the Rochdale magistrates, ‘to prosecute for intimidation the agents of the carpet weavers Trades’ Union. Bright’s partners had introduced new machinery which would turn out 240 yards of carpet in the time and with the labor (!) previously required to produce 160 yards. The workmen had no claim whatever to share in the profits made by the investment of their employer’s capital in mechanical improvements. Accordingly, Messrs Bright proposed to lower the rate of pay from 1 1/2d. per yard to 1d., leaving the earnings of the men exactly the same as before for the same labor. But there was a nominal reduction, of which the operatives, it is asserted, had not fair warning beforehand.’

⁶³ ‘Trades’ unions, in their desire to maintain

weil der Kapitalist den Vorwand benutzt, um wirklich den Preis der Arbeit herabzusetzen, oder weil die gesteigerte Produktivkraft der Arbeit von gesteigerter Intensität derselben begleitet ist. Oder weil der Arbeiter den Schein des Stücklohns, als ob ihm sein Produkt gezahlt werde und nicht seine Arbeitskraft, ernst nimmt und sich daher gegen eine Lohnherabsetzung sträubt, welcher die Herabsetzung im Verkaufspreis der Ware nicht entspricht.

„Die Arbeiter überwachen sorgfältig den Preis des Rohmaterials und den Preis der fabrizierten Güter und sind so fähig, die Profite ihrer Meister genau zu veranschlagen.“⁶¹

⁶¹ H. Fawcett, „The Economic Position of the British Labourer“, Cambridge and London 1865, p. 178.

582:2 Solchen Anspruch fertigt das Kapital mit Recht als groben Irrtum über die Natur der Lohnarbeit ab.⁶² Es zetet über diese Anmaßung, Steuern auf den Fortschritt der Industrie zu legen, und erklärt rundweg, daß die Produktivität der Arbeit den Arbeiter überhaupt nichts angeht.⁶³

⁶² Im Londoner „Standard“ vom 26. Oktober 1861 findet man Bericht über einen Prozeß der Firma John Bright et Co. vor den Rochdale Magistrates, „die Vertreter der Trade Union der Teppichweber wegen Einschüchterung gerichtlich zu belangen. Die Teilhaber Brights hatten neue Maschinerie eingeführt, die 240 Yards Teppich in der Zeit und mit der Arbeit (!) produzieren sollten, die früher zur Produktion von 160 Yards erforderlich waren. Die Arbeiter hatten keinerlei Anrecht, an den Profiten teilzuhaben, die durch die Kapitalanlage ihrer Unternehmer in mechanischen Verbesserungen gemacht worden waren. Daher schlugen die Herren Bright vor, den Lohn von 1 1/2 d. pro Yard auf 1 d. zu senken, wodurch die Einkünfte der Arbeiter für die gleichen Arbeit genau so blieben wie vorher. Aber das war eine nominelle Herabsetzung, von der die Arbeiter, wie behauptet wird, vorher nicht ehrlich verständigt worden waren.“

⁶³ „Trades Unions in ihrer Sucht, den Arbeits-

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wages, endeavour to share in the benefits of improved machinery!’ (Quelle horreur!) ‘The demanding higher wages, because labor is abbreviated, is in other words the endeavour to establish a duty on mechanical improvements’ (On Combinations of Trades new edn, London, 1834, p. 42).

lohn aufrechtzuhalten, suchen an dem Profit verbesserter Maschinerie teilzunehmen!“ (Quelle horreur!) „... sie verlangen höheren Lohn, weil die Arbeit verkürzt ist ... in anderen Worten, sie streben, eine Steuer auf industrielle Verbesserungen zu legen.“ („On Combination of Trades“, New Edit., Lond. 1834, p. 42.)

Question 1136 *If the capitalists make higher profits due to technical innovation, should the workers get part of this?* [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#).

22. National Differences of Wages

In the last paragraph of chapter Twenty-Two, Marx summarizes a study by Carey, who tries to prove that wages depend on productivity by bringing evidence that wages are higher in countries with higher productivity. Such a theory of wages would of course be incompatible with Marx's theory that wages are the transformed price of labor-power. Marx's goal for this chapter is to show how Carey's data (higher wages in more developed countries) can be explained on the basis of the labor theory of value and the labor-power theory of wages.

In order to show this, Marx uses two elements: (1) the tendency in capitalism to increase the daily wage and lower the price of labor, and (2) certain "modifications of the law of value" in the international sphere, according to which internationally, more productive labor counts as labor producing more value.

After this brief summary let's turn to the discussion of the text.

1. [Measuring National Differences in Wages]

The chapter begins with a reference to chapter Seventeen, which discusses variations in the value of labor-power. Since there are several different ways to measure wages, there are therefore also several different ways in which wages can be said to change.

558:1 In chapter 17 we were concerned with the manifold combinations which a change in the magnitude of the value of labor-power may bring about—this magnitude being considered either absolutely or relatively (i.e. as compared with surplus-value). We found also that the quantity of the means of subsistence in which the price of labor-power was realized might again undergo fluctuations independent of,⁶⁴ or different from, the changes in this price.

583:1 Im fünfzehnten Kapitel beschäftigten uns die mannigfachen Kombinationen, welche ein Wechsel in der absoluten oder relativen (d.h. mit dem Mehrwert verglichenen) Wertgröße der Arbeitskraft hervorbringen kann, während andererseits wieder das Quantum von Lebensmitteln, worin der Preis der Arbeitskraft realisiert wird, von dem Wechsel dieses Preises unabhängige⁶⁴ oder verschiedene Bewegung durchlaufen konnte.

Instead of "*welche ein Wechsel*,"
the German MEW 23 says

"*welche einen Wechsel*." We are
following here the second edition

[megaII/6]519:1, which says:
"*welche ein Wechsel*."

⁶⁴ 'It is not accurate to say that wages' (he is talking here about their monetary expression) 'are increased, because they purchase more of a cheaper article.' (David Buchanan in his edition of Adam Smith's *Wealth of Nations*, 1814, vol. 1, p. 417, n.).

⁶⁴ „Es ist nicht richtig, zu sagen, daß die Löhne“ (handelt sich hier von ihrem Preise) „gestiegen sind, weil man mit ihnen mehr von einem billigeren Artikel kaufen kann.“ (David Buchanan in seiner Ausgabe von A. Smiths „*Wealth etc.*“, 1814, v. I, p. 417, Note.)

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The Moore-Aveling translation correctly renders “Preis” as

“money expression,” while Fowkes commits the blunder of

translating it with “price of labor-power.”

Question 1137 *If the value of labor-power is determined by the value of the wage bundle, how can then the quantity of consumption goods in which it can be represented move independently of this value?*

↑ The beginning of the first paragraph shown above hints at various different ways of measuring wages, but a systematic survey of all possible measurements is not given. Here is an attempt to supply such a survey.

- One possibility is to express wages in money. The term “nominal wages” is used for this in 543:3 and also Theories 2 p. [mecw]. In footnote 64 Marx uses the phrase “price of the wage” (translated with: “monetary expression of the wage”) for the nominal wages as opposed to the use-values purchased with these wages.
- Instead of being expressed in the General equivalent, the wage may also be expressed in Expanded equivalents, i.e., in the amount of use-values which the workers will actually buy with these wages. Marx uses for this the term “real wages” (wirklicher Lohn in 559:2, reeller Lohn in 543:3 and Theories 2 p. [mecw]).
- Another important distinction is that between the overall daily or weekly wage and the “price of labor.”
- Besides these absolute measurements, wages can also be measured *relatively* to the surplus-value (or, derived from this, the total value) created by the labor for which the wage is paid. Such a relative measurement is made whenever the “price of labor” is expressed as a percentage of the value newly created in the product, or if the paid labor is given as a proportion of the total labor, or if the price of one hour of labor is given in so and so many minutes of (that same) labor. For instance, the term “relative value of labor” in Theories 2, p. [mecw] refers to the value of labor relatively to the value of the product of this labor. In 559:3, Marx also refers to the “price of labor in relation to the product.”

By the way, the value of *money* can only be expressed in the relative form of value (see 104:3/o), therefore when he talks about the “relative value of money” on pp. 559:2 and 559:3, he obviously refers to what should better be called the “real” than the “relative” value of money.

As has been said already, the simple translation of the value, or respectively of the price, of labor-power, into the exoteric form of wages transforms all these laws into laws governing the movement of wages.

Wie bereits bemerkt, verwandeln sich durch einfache Übersetzung des Werts, resp. Preises der Arbeitskraft in die exoterische Form des Arbeitslohns alle jene Gesetze in Gesetze der Bewegung des Arbeitslohns.

Marx said this already in 543:3.

↓ Whereas chapter Seventeen discussed *temporal changes* of prices over time, the present chapter discusses *local differences* between wages. There is a close connection: the same factors which cause the wages in one nation to change may also cause simultaneous differences in different countries. The manifestation of these factors may nevertheless be very different.

1. [Measuring National Differences in Wages]

What appears within the movement of wages as a series of varying combinations may appear for different countries as a set of simultaneous differences in national wage-levels.

Was innerhalb dieser Bewegung als wechselnde Kombination, kann für verschiedene Länder als gleichzeitige Verschiedenheit nationaler Arbeitslöhne erscheinen.

↑ But this correspondence has its limits. At the end of this chapter, in 562:1/563, Marx criticizes Carey for using cross-sectional evidence to support his temporal hypothesis.

The rest of this paragraph enumerates three different steps which are necessary in an international wage comparison.

Step 1: one has to take into account all those factors on which the value of labor-power, i.e., the reproduction cost of the labor-power, depends. Brief enumeration of several points which we already know from chapter Seventeen:

In comparing wages in different nations, we must therefore take into account all the factors that determine changes in the amount of the value of labor-power; the price and the extent of the natural and historically developed prime necessities of life, the cost of educating the workers, the part played by the labor of women and children, the productivity of labor, and its extensive and intensive magnitude.

Beim Vergleich nationaler Arbeitslöhne sind also alle den Wechsel in der Wertgröße der Arbeitskraft bestimmende Momente zu erwägen, Preis und Umfang der natürlichen und historisch entwickelten ersten Lebensbedürfnisse, Erziehungskosten des Arbeiters, Rolle der Weiber- und Kinderarbeit, Produktivität der Arbeit, ihre extensive und intensive Größe.

↑ We will number these points (a)–(f) so that there is no confusion with the three steps of which we are presently in step one.

(a) Price and extent of the natural and historically developed prime necessities of life (e.g., whether cars are a necessity, whether health care is paid by the state, etc.)

(aa) In the French edition, the average size of the families is included here, too: this may be regarded as a subpoint to (a).

(b) The education cost of the laborers (how many years of school, who pays for the school, the skills required for simple labor, etc.).

(c) The part played by the labor of women and children. A little more about this is said in chapter Seventeen, 519:3: “The employment of these different sorts of labor-power, an employment which is, in its turn, made necessary by the mode of production, makes a great difference in the cost of maintaining the family of the laborer, and in the value of the labor-power of the adult male.” The Machinery chapter explains it more explicitly on p. 398:2/o: If more members of the family work, then the wages of more individuals contribute to the consumption fund of the family. However, there are also tendencies raising the wages again: The family has to consume more objectified labor (labor-saving devices) because there is not so much living labor available for housework; the child-labor also means faster wear of the labor-power, i.e., a shorter life.

Points (a), (b), and (c) are those which had been kept constant in chapter Seventeen. Besides, there are those points which were varied in chapter Seventeen:

(d) Productiveness of labor

(e) Length of the working-day

(f) Intensity of labor

Question 1138 *How do the following factors affect the value of labor-power: (a) the price and the extent of the natural and historically developed prime necessities of life, (b) the cost*

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of educating the workers, (c) the part played by the labor of women and children, (d) the productivity of labor, and (e) its extensive and (f) intensive magnitude?

Steps 2 and 3 in the rest of the present paragraph 558:1 say how wages must be measured so that they can be compared best.

Step 2: instead of the daily wage one needs the hourly wage in order to make a comparison of the “price of labor.”

Even the most superficial comparison requires the prior reduction of the average daily wage for the same trades, in different countries, to a uniform working day.

Selbst die oberflächlichste Vergleichung erheischt, zunächst den Durchschnitts-Taglohn für dieselben Gewerbe in verschiedenen Ländern auf gleich große Arbeitstage zu reduzieren.

Question 1139 *How does a superficial international comparison of wages differ from one that is not superficial?*

Step 3: instead of the hourly wage one needs the piece wage, because this is the form of wage most appropriate for capitalist production, see .

After this reduction of the daily wage to the same terms, the time-wage must again be translated into the piece-wage, as only the latter can be a measure both of the productivity and of the intensity of labor.

Nach solcher Ausgleichung der Taglöhne muß der Zeitlohn wieder in Stücklohn übersetzt werden, da nur der letztere ein Gradmesser sowohl für die Produktivität als die intensive Größe der Arbeit.

Question 1140 *Which factors have to be considered to explain differences in the value of labor-power between different countries? Which form of wages is the most appropriate to compare the price of a given amount of labor?*

2. [Modifications of the Law of Value]

In the First edition, the argument developed in this chapter took up only three paragraphs. The first paragraph was very close to 558:1, then a paragraph saying that in the international sphere, both intensity and productivity of labor count as labor producing more value, and finally paragraph 562:1/563. which reports on Carey’s theory. This second paragraph should be discussed here.

First three sentences: Modifications of the *law of value* in the international sphere, concerning commodities in general. After this Marx will discuss the modifications concerning the *wage*.

Intensity and productivity of labor enter the determination of the value of a commodity differently in one nation than in the international trade. This modification was already mentioned in 525:2.

↓ Let us look at intensity first.

558:2/o In every country there is a certain average intensity of labor, below which the labor for the production of a commodity requires more than the time socially necessary, and therefore does not count as labor of normal quality.

583:2/o In jedem Lande gilt eine gewisse mittlere Intensität der Arbeit, unter welcher die Arbeit bei Produktion einer Ware mehr als die gesellschaftlich notwendige Zeit verbraucht, und daher nicht als Arbeit von normaler Qualität zählt.

2. [Modifications of the Law of Value]

This average intensity is for instance etched into the piece wage rates, see .

↑ Marx says here that labor which has less than average intensity does not count as labor. For instance, if the socially necessary labor-time going into one product is 5 hours of average intensity, then it would not be possible for a capitalist to use a production method that would require 10 hours or have half the normal intensity. Why not? Three points which should be investigated as to how categories of social labor-time are transformed into value categories:

- The capitalist could not at the same time pay the slow worker a wage on which he can survive and still make a profit.
- Since the capitalist would need more workers, he would deplete the limited supply of labor-power available to society. (This seems to be the crucial point). His difficulties to get workers are enhanced by the fact that he would be able to pay only half the price, and that his great demand would decrease the competitive struggle between the workers.
- The capital would have a longer production time and therefore a slower turnover of his capital, which would cut into his rate of profits. Besides, some parts of the fixed capital such as buildings depreciate not according to the amount of production, but according to the time; thus his individual value would be greater than the social value. Besides, some parts of the anticipated surplus-value, such as property taxes, interest, are tied to the fixed capital.

Marx does not give these detailed arguments but merely states that the law of value prescribes the intensity of labor for all producers. The producers cannot deviate—with an important exception mentioned next: they can have *higher* intensity than others, but not lower intensity. In a given country, only a degree of intensity which is above the national average alters the measurement of value by the mere duration of labor-time.

Nur ein über den nationalen Durchschnitt sich erhebender Intensitätsgrad ändert, in einem gegebenen Lande, das Maß des Werts durch die bloße Dauer der Arbeitszeit.

The same is valid for the productivity, as Marx will say in the next paragraph 559:1.

The market-enforced uniformity of the conditions of production also distinguishes capitalism from socialism. In socialism, there is much more room for the coexistence of different intensities and productivities!

The first important “modification” of the law of value in the international exchange is that equalization of intensity and productivity are not necessary. Marx had mentioned this already in chapter Seventeen, 525:2.

It is otherwise on the world market, whose integral parts are the individual countries. The average intensity of labor changes from country to country; here it is greater, there less. These national averages form a scale whose unit of measurement is the average unit of universal labor. The more intense national labor, therefore, as compared with the less intense, produces in the same time more value, which expresses itself in more money.

Anders auf dem Weltmarkt, dessen integrierende Teile die einzelnen Länder sind. Die mittlere Intensität der Arbeit wechselt von Land zu Land; sie ist hier größer, dort kleiner. Diese nationalen Durchschnitte bilden also eine Stufenleiter, deren Maßeinheit die Durchschnittseinheit der universellen Arbeit ist. Verglichen mit der weniger intensiven, produziert also die intensivere nationale Arbeit in gleicher Zeit mehr Wert, der sich in mehr Geld ausdrückt.

Although a lower intensity or lower productivity yields less international value, there is not the compulsion for all capitalists to have the same technology of production.

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Now a second modification of the law of value:

559:1 But the law of value is yet more modified in its international application by the fact that, on the world market, national labor which is more productive also counts as more intensive, as long as the more productive nation is not compelled by competition to lower the selling price of its commodities to the level of their value.

584:1 Noch mehr aber wird das Wertgesetz in seiner internationalen Anwendung dadurch modifiziert, daß auf den Weltmarkt die produktivere nationale Arbeit ebenfalls als intensivere zählt, sooft die produktivere Nation nicht durch die Konkurrenz gezwungen wird, den Verkaufspreis ihrer Ware auf ihren Wert zu senken.

Marx introduces this here as a parallel to intensity. A closer investigation of these problems of course has to look at the specific characteristics of productivity as opposed to intensity!

Marx adds “so long as the more productive nation is not compelled by competition” because without this qualification, the price of a good produced in a country with higher technology would be higher than that of the same good, produced using the same technology, in a country with generally lower technology. Marx says this in the next paragraph.

Question 1141 *What are the two modifications of the law of value in its international application? How are they related with each other?*

↓ These modifications have implications for the relative value of gold in the different countries.

559:2 In proportion as capitalist production is developed in a country, so, in the same proportion, do the national intensity and productivity of labor there rise above the international level.^{64a} The different quantities of commodities of the same kind, produced in different countries in the same working time, have, therefore, unequal international values, which are expressed in different prices, i.e. in sums of money varying according to international values.

584:2 Im Maß, wie in einem Lande die kapitalistische Produktion entwickelt ist, im selben Maß erheben sich dort auch die nationale Intensität und Produktivität der Arbeit über das internationale Niveau.^{64a} Die verschiedenen Warenquanta derselben Art, die in verschiedenen Ländern in gleicher Arbeitszeit produziert werden, haben also ungleiche internationale Werte, die sich in verschiedenen Preisen ausdrücken, d.h. in je nach den internationalen Werten verschiedenen Geldsummen.

^{64a} We shall inquire, in another place, what circumstances in relation to productivity may modify this law for individual branches of production.

^{64a} An anderer Stelle werden wir untersuchen, welche Umstände, in Beziehung auf die Produktivität, dies Gesetz für einzelne Produktionszweige modifizieren können.

Example of individual branches of production in which this is not correct: see Theories 2, [mecw].

With the same amount of money one can buy less in a developed nation:

The relative value of money will therefore be less in the nation with a more developed capitalist mode of production than in the nation with a less developed capitalist mode of production.

Der relative Wert des Geldes wird also kleiner sein bei der Nation mit entwickelterer kapitalistischer Produktionsweise als bei der mit wenig entwickelter.

2. [Modifications of the Law of Value]

Question 1142 *Country A is more advanced than B, but in both countries, a loaf of bread contains 10 minutes of labor. Where is the price of a loaf of bread, measured in gold, higher, in country A or in country B? Or are they necessarily the same?*

In other words, the array of use-values into which 1 oz. of gold can be converted is lower in the countries with higher productivity than in countries with lower productivity. Marx does not have to make the assumption that there is no technical progress in gold. The assumption is really that productivity in gold production rises as fast as the average world productivity; but at any given time, some countries have their domestic productivity lower than the world productivity, therefore gold buys a higher amount of their domestic labor.

The last sentence of the current paragraph and the next paragraph discuss the implications of these general modifications for wages:

It follows then that nominal wages, the equivalent of labor-power expressed in money, will also be higher in the first nation than in the second; but this by no means proves that the same can be said of real wages, i.e. the means of subsistence placed at the disposal of the worker.

Folgt also, daß der nominelle Arbeitslohn, das Äquivalent der Arbeitskraft ausgedrückt in Geld, ebenfalls höher sein wird bei der ersten Nation als bei der zweiten; was keineswegs besagt, daß dies auch für den wirklichen Lohn gilt, d.h. für die dem Arbeiter zur Verfügung gestellten Lebensmittel.

1 ounce of gold is 100 African labor hours = 50 labor hours in the USA, since labor in the USA is more productive and more intensive than labor in Africa. One ounce of gold buys less labor-time in the USA, but also fewer use-values, i.e., the productivity in the USA is not twice as high, although 50 hours in the USA = 100 African hours.

Nation A is more developed than nation B. Its average intensity and productivity are higher, i.e., one hour produces more use-values and therefore also more gold; say in country A 1 hour = 1/10 ounce of gold (\$20). In nation B, 1 hour = 1/20 ounce of gold (\$10). Nation A produces in 1 hour 25 spark plugs; 1 spark plug = 80 cents. Nation B produces in 1 hour 15 spark plugs, 1 spark plug = 67 cents. Therefore a certain amount of gold can buy less in A than in B, i.e., relative value of money lower in A. (Spark plugs are a bad example, because they have a world market price).

↓ Implications of these modifications for wages:

559:3 But even apart from these relative differences in the value of money in different countries, it will frequently be found that the daily or weekly wage in the first nation is higher than in the second while the relative price of labor, i.e. the price of labor as compared both with surplus-value and with the value of the product, stands higher in the second than in the first.⁶⁵

584:3 Aber auch abgesehen von dieser relativen Verschiedenheit des Geldwerts in verschiedenen Ländern, wird man häufig finden, daß der Tages-, Wochen-, etc. Lohn bei der ersteren Nation höher ist als bei der zweiten, während der relative Arbeitspreis, d.h. der Arbeitspreis im Verhältnis sowohl zum Mehrwert wie zum Wert des Produkts, bei der zweiten Nation höher steht als bei der ersteren.⁶⁵

This is why it is necessary to reduce wages to piece wages in an international comparison. According to the evidence Marx is about to bring, at Marx's time it was not possible for English capitalists to benefit from the lower time wages in Scotland, Ireland, or continental Europe by moving production there. Along with the lower time wages came an even lower performance, so that the piece wages were actually higher.

3. [Examples of Lower Time Wages but Higher Piece Wages]

All examples show that countries which higher productivity have higher nominal wages, and those with lower productivity lower nominal wages. (Regarding real wages, Marx said in Theories 2, p. [mecw] that not only the nominal, but the real wage is higher in England than on the continent. But in the present chapter he seems a little evasive about this subject. This suggests the simple explanation that wages are proportional to productivity, and Carey, who will be discussed at the end of this chapter, says exactly that. However in Marx's theory the connections are more complicated. This is another example where direct empirical evidence must be looked at critically.

Marx gives several examples from the literature. The first two examples can be found in the footnote to the preceding paragraph. Anderson says the following about wages in Scotland:

⁶⁵ James Anderson remarks, in a polemic against Adam Smith: 'It deserves likewise to be remarked, that although the apparent price of labor is usually lower in poor countries, where the produce of the soil, and grain in general, is cheap; yet it is in fact for the most part really higher than in other countries. For it is not the wages that is given to the laborer per day that constitutes the real price of labor, although it is its apparent price. The real price is that which a certain quantity of work performed actually costs the employer; and considered in this light, labor is in almost all cases cheaper in rich countries than in those that are poorer, although the price of grain, and other provisions, is usually much lower in the poorer than in the richer ... Labor estimated by the day, is much lower in Scotland than in England ... Labor by the piece is generally cheaper in England' (James Anderson, *Observations on the Means of Exciting a Spirit of National Industry*, etc., Edinburgh, 1777, pp. 350–51).

⁶⁵ James Anderson bemerkt in Polemik gegen A. Smith: „Es verdient gleicherweise bemerkt zu werden, daß, obgleich der Preis der Arbeit in armen Ländern, wo die Feldfrüchte, und besonders das Getreide, billig sind, scheinbar gewöhnlich niedriger ist, so ist er doch in der Tat dort meistens wirklich höher als in andern Ländern. Denn nicht der Lohn, den ein Arbeiter pro Tag erhält, stellt den realen Preis der Arbeit dar, obgleich er ihr scheinbarer Preis ist. Der reale Preis ist das, was ein bestimmtes Quantum geleisteter Arbeit den Unternehmer tatsächlich kostet; und unter diesem Gesichtswinkel ist Arbeit in fast allen Fällen in reichen Ländern billiger als in ärmeren, obwohl der Preis des Getreides und anderer Lebensmittel gewöhnlich in den letzteren weit niedriger ist als in den ersteren ... Arbeit im Taglohn ist viel niedriger in Schottland als in England ... Arbeit im Stücklohn ist im allgemeinen billiger in England.“ (James Anderson, „*Observations on the means of exciting a spirit of National Industry* etc.“, Edinb. 1777, p. 350, 351.)

The causality which Marx saw behind these facts is apparently that the low productivity of labor forces capitalists to make the working-day long and wages low. Evidence that he thinks this is the following remark introducing the second quote in this footnote:

^{65 ctd} Conversely, a low level of wages produces, in its turn, dearness of labor.

^{65 ctd} —Umgekehrt produziert ihrerseits die Niedrigkeit des Arbeitslohns Verteuerung der Arbeit.

Question 1144 *How can a low level of wages produce dearness of labor?*

Now the second quote itself. Railway Commission Minutes say something at first glance completely paradoxical:

^{65 ctd} 'Labor being dearer in Ireland than it is in England ... because the wages are so much lower' (N. 2074, in *Royal Commission on Railways*, Minutes, 1867).

^{65 ctd} „Arbeit ist teurer in Irland als in England ... weil die Löhne so viel niedriger sind.“ (Nr. 2074 in „*Royal Commission on Railways*, Minutes“, 1867.)

3. [Examples of Lower Time Wages but Higher Piece Wages]

The Factory Commission says something about Spinning:

560:1–2 J. W. Cowell, a member of the Factory Commission of 1833, came to the conclusion, after careful investigation of the spinning trade, that

‘in England wages are virtually lower to the capitalist, though higher to the operative than on the Continent of Europe’ (Ure, p. 314).

585:1–2 J. W. Cowell, Mitglied der Fabrikkommission von 1833, kam nach sorgfältiger Untersuchung der Spinnerei zum Ergebnis, daß

„in England die Löhne der Sache nach niedriger für den Fabrikanten sind als auf dem Kontinent, obwohl sie für den Arbeiter höher sein mögen“ (Ure, p. 314).

↑ In England, the worker is exploited more but at the same time lives better than on the European Continent. This quote is the closest Marx gets to saying that real wages are higher in England. In *Theories 2*, p. [mecw], Marx is much more explicit about this.

↓ Redgrave: Cotton Spinning in Oldenburg, Germany:

The English factory inspector Alexander Redgrave, in his Report of 31 October 1866, proves, by comparing the statistics of Continental states, that in spite of lower wages and much longer hours of work, Continental labor is, in proportion to the product, dearer than English. The English manager of a cotton factory in Oldenburg declared that the working hours there were from 5.30 a.m. to 8 p.m., Saturdays included, and that the workers, when under English overseers, did not supply during this time quite so much of the product as the English in 10 hours, while they supplied much less when under German overseers. Wages are much lower than in England, in many cases lower by 50 per cent, but the number of ‘hands’ in proportion to the machinery is much greater, in certain departments in the proportion of 5:3.

585:3/o Der englische Fabrikinspektor Alexander Redgrave weist im Fabrikbericht vom 31. Oktober 1866 durch vergleichende Statistik mit den Kontinentalstaaten nach, daß trotz niedrigerem Lohn und viel längerer Arbeitszeit die kontinentale Arbeit, verhältnismäßig zum Produkt, teurer ist als die englische. Ein englischer Direktor (manager) in einer Baumwollfabrik in Oldenburg erklärt, daß dort die Arbeitszeit von 5.30 Uhr morgens bis 8 Uhr abends währt, samstags eingeschlossen, und daß die dortigen Arbeiter, wenn unter englischen Arbeitsaufsehern, während dieser Zeit nicht ganz soviel Produkt liefern als Engländer in 10 Stunden, unter deutschen Arbeitsaufsehern aber noch viel weniger. Der Lohn stehe viel tiefer als in England, in vielen Fällen um 50%, aber die Zahl der Hände im Verhältnis zur Maschinerie sei viel größer, in verschiedenen Departements im Verhältnis von 5:3.

Here the reason for the lower productivity is the length of the work day. Next example from Redgrave again: cotton in Russia.

Mr Redgrave also gives very precise details as to the Russian cotton factories. The data were given him by an English manager until recently employed there. On this Russian soil, so fruitful of all infamies, the old horrors of the early days of English factories are in full swing. The managers are, of course, English, as the native Russian capitalist is incapable of handling factory business. Despite all the over-work, which continues throughout the day and the night, despite the most shameful under-payment

Herr Redgrave gibt sehr genaue Details über die russischen Baumwollfabriken. Die Data sind ihm geliefert durch einen dort noch kürzlich beschäftigten englischen manager. Auf diesem russischen Boden, an allen Infamien so fruchtbar, stehn auch die alten Greuel aus der Kindheitsperiode der englischen factories in vollster Blüte. Die Dirigenten sind natürlich Engländer, da der eingeborene russische Kapitalist nicht für das Fabrikgeschäft taugt. Trotz aller Überarbeit, fortlaufender Tag- und Nachtarbeit und

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of the workers, Russian manufacturing only manages to vegetate thanks to the prohibition of foreign competition.

These workers are overworked and Marx makes it here very clear that the capitalist would not be able to pay higher wages. Now again Redgrave, this time about cotton spinning in Europe.

I give, in conclusion, a comparative table of Mr Redgrave's on the average number of spindles per factory and per spinner in the different countries of Europe. He himself remarks that these figures were collected a few years ago, and that since that time the size of the factories and the number of spindles per worker in England has increased. He assumes, however, that an approximately equal advance has been made in the Continental countries mentioned, so that the numbers given would still retain their value for purposes of comparison.

561:1–2

Average Number of Spindles per Factory	
England	12600
Switzerland	8000
Austria	7000
Saxony	4500
Belgium	4000
France	1500
Prussia	1500

Average number of spindles per head

	One person to
Great Britain	74 Spindeln
Switzerland	55 Spindeln
Smaller German States	55 Spindeln
Saxony	50 Spindeln
Belgium	50 Spindeln
Austria	49 Spindeln
Bavaria	46 Spindeln
Prussia	37 Spindeln
Russia	28 Spindeln
France	14 Spindeln

In the above tables, the German edition is inconsistent. It sorts the first table in declining order of

productivity, and the second in increasing order. In the French edition, the order of the second

schmählichster Unterzahlung der Arbeiter, vergetiert das russische Fabrikat nur durch Prohibition des ausländischen.

—Ich gebe schließlich noch eine vergleichende Übersicht des Herrn Redgrave über die Durchschnitts-Spindelzahl per Fabrik und per Spinner in verschiedenen Ländern Europas. Herr Redgrave bemerkt selbst, daß er diese Zahlen vor einigen Jahren gesammelt hat und daß seit der Zeit die Größe der Fabriken und die Spindelzahl per Arbeiter in England gewachsen seien. Er unterstellt aber verhältnismäßig gleich großen Fortschritt in den aufgezählten Kontinentalländern, so daß die Zahlenangaben ihren komparativen Wert behalten hätten.

586:1–3

Durchschnittszahl von Spindeln per Fabrik	
In England Durchschnittszahl von Spindeln auf je eine Fabrik	12600
In der Schweiz	8000
In Österreich	7000
In Sachsen	4500
In Belgien	4000
In Frankreich	1500
In Preußen	1500

Durchschnittszahl von Spindeln per Kopf

	eine Person auf
In Frankreich	14 Spindeln
In Russland	28 Spindeln
In Preußen	37 Spindeln
In Bayern	46 Spindeln
In Österreich	49 Spindeln
In Belgien	50 Spindeln
In Sachsen	50 Spindeln
In den kleinern deutschen Staaten	55 Spindeln
In der Schweiz	55 Spindeln
In Großbritannien	74 Spindeln

table is reversed, and I am taking this reversal into the English version here.

How does the English worker handle this larger number of spindles? Probably the spindles are better, the worker is stronger and better rested, his skills are higher, the work day is

3. [Examples of Lower Time Wages but Higher Piece Wages]

shorter. The following quote shows that these are not the same spindles:

‘This comparison,’ says Mr. Redgrave, ‘is yet more unfavourable to Great Britain, inasmuch as there is so large a number of factories in which weaving by power is carried on in conjunction with spinning’ (while in the table the weavers are not subtracted) ‘and the factories abroad are chiefly spinning factories; if it were possible to compare like with like, strictly, I could find many cotton spinning factories in my district in which mules containing 2,200 spindles are minded by one man and two assistants only, turning out daily 220 lb. of yarn, measuring 400 miles in length’ (Reports of the Inspectors of Factories ... 31 October 1866, pp. 31–7, passim.)

„Diese Vergleichung“, sagt Herr Redgrave, „ist, außer andren Gründen, besonders auch deswegen für Großbritannien ungünstig, weil dort eine sehr große Zahl Fabriken existiert, worin die Maschinenweberei mit der Spinnerei verbunden ist, während die Rechnung keinen Kopf für die Webstühle abzieht. Die auswärtigen Fabriken sind dagegen meist bloße Spinnereien. Könnten wir genau Gleiches mit Gleichem vergleichen, so könne ich viele Baumwollspinnereien in meinem Distrikt aufzählen, worin Mules mit 2200 Spindeln von einem einzigen Mann (minder) und zwei Handlangerinnen überwacht und täglich 220 Pfund Garn, 400 (englische) Meilen in Länge, fabriziert werden.“ („Reports of Insp. of Fact., 31st Oct. 1866“, p. 31–37 passim.)

Railroads in Asia: English and Asian workers side by side.

561:3/o It is well known that in Eastern Europe, as well as in Asia, English companies have taken over railroads in their construction phase, employing a certain number of English workers side by side with the locals. Practical necessity has thus compelled them to take into account the national differences in the intensity of labor, but this has not brought them any loss.

586:4/o Man weiß, daß in Osteuropa sowohl wie in Asien englische Kompanien Eisenbahnen in Bau übernommen haben und dabei neben einheimischen auch eine gewisse Zahl englischer Arbeiter verwenden. Durch praktische Notwendigkeit gezwungen, so den nationalen Unterschieden in der Intensität der Arbeit Rechnung zu tragen, hat ihnen das keinen Schaden gebracht.

Fowkes has here the erroneous translation: “English companies

have undertaken the construction of railways.” What does the

French say?

Presumably, before the railroads were taken over by the English companies, construction labor was locally supplied. It was profitable to replace local workers with the higher-paid English workers, apparently not only because of skills but also because of the intensity of labor.

Their experience shows that even if the level of wages more or less corresponds with the average intensity of labor, the relative price of labor (i.e. the price of labor in relation to the product) generally varies in the inverse direction.

Ihre Erfahrung lehrt, daß, wenn auch die Höhe des Lohnes mehr oder weniger der mittleren Arbeitsintensität entspricht, der relative Arbeitspreis (im Verhältnis zum Produkt) sich im allgemeinen im entgegengesetzten Sinn bewegt.

A somewhat vague formulation. Marx presumably means: wages are higher in countries in which the intensity of labor is higher, but wages per output are nevertheless lower.

Question 1146 *Let A be a more developed capitalistic nation than B. In which of the two nations will as a rule the following magnitudes be higher: Intensity of labor Productivity of labor Amount of money (gold) representing 1 hour of average labor Relative value of money Nominal daily wages Time-wages Piece-wages Price of labor in relation to surplus-value*

4. [Carey's Theory of Wages]

Carey thought he had discovered, by an international comparison of wages, that wages are proportional to the productivity of labor. This is entirely at odds with Marx's theory of wages; however the international amendments to the theory of value and wages introduced in the present chapter allow an explanation of Carey's findings which is consistent with Marx's theory.

562:1/563 In his *Essay on the Rate of Wages*,⁶⁶ one of his first economic writings, H. Carey purports to show that the different national wage-levels are directly proportional to the degree of productivity of the working day of each nation, in order to draw the conclusion from this international relation that wages generally rise and fall in proportion to the productivity of labor.

⁶⁶ *Essay on the Rate of Wages: With an Examination of the Causes of the Differences in the Condition of the Laboring Population throughout the World* Philadelphia, 1835.

⇓ Marx's comment about Carey distinguishes between Carey's *premise* (that international wage levels are proportional to productivity) and Carey's *conclusion* (that in each country wages rise and fall in proportion to the productivity of labor).

The whole of our analysis of the production of surplus-value shows that this conclusion would be unwarranted even if Carey had *demonstrated* his premise, instead of his usual shuffling to and fro of a mass of statistical material thrown together uncritically and superficially.

587:1/o In „Versuch über die Rate des Arbeitslohns“⁶⁶, einer seiner frühesten ökonomischen Schriften, sucht H. Carey nachzuweisen, daß die verschiedenen nationalen Arbeitslöhne sich direkt verhalten wie die Produktivitätsgrade der nationalen Arbeitstage, um aus diesem internationalen Verhältnis den Schluß zu ziehen, daß der Arbeitslohn überhaupt steigt und fällt wie die Produktivität der Arbeit.

⁶⁶ „Essay on the Rate of Wages: with an Examination of the Causes of the Differences in the Conditions of the Labouring Population throughout the World“, Philadelphia 1835.

Unsre ganze Analyse der Produktion des Mehrwerts beweist die Abgeschmacktheit dieser Schlußfolgerung, hätte Carey selbst seine Prämisse *bewiesen*, statt seiner Gewohnheit gemäß unkritisch und oberflächlich zusammengerafftes statistisches Material kunterbunt durcheinanderzuwürfeln.

In the English edition of *Capital*, a “himself” comes after “Carey” which is a translation error. The German “*hätte Carey selbst seine*

Prämisse bewiesen” is meant to be a contraction of the sentence: “*selbst wenn Carey seine Prämisse bewiesen hätte*.” In other words,

“*selbst*” does not refer to “Carey” but to “*wenn*,” and must be translated with “even.”

Regarding the premise, Marx's criticism is that Carey does not really *prove* it, but he does not say that the premise is necessarily wrong—this may depend on how the quantity of wages is defined.

But the step from the premise to the conclusion is unjustified, since one cannot use cross-sectional data to prove a time series hypothesis.

And the conclusion itself is fundamentally at odds with Marx's theory that wages are determined by the reproduction cost of labor-power. If wages are measured as relative wages (relative to surplus-value), there is a negative, not a positive, correlation between wages and productivity. In *Theories of Surplus-Value* 2, pp. [mecw], Marx says: “Because in a given country the relative value of labor falls if the productiveness of labor rises, it must not be imagined that wages in different countries are inversely proportional to the productiveness of labor. Exactly the opposite is the case. The more productive one country is relative to

5. [Carey's Theory of Capitalist Phenomena Interfering with Capitalism]

another in the world market, the higher will be its wages as compared with the other." I.e., Marx agrees with Carey's premise but comes to the opposite conclusion.

The best of all is that he does not say that things actually are as they ought to be according to his theory. For state intervention has falsified the natural economic relation. The different national wages must therefore be calculated on the assumption that the part of them that goes to the state in the form of taxes was received by the worker himself. Ought not Mr Carey to think about it some more whether these 'state expenses' are not the 'natural fruits' of capitalist development?

Das Beste ist, daß er nicht behauptet, die Sache verhalte sich wirklich so, wie sie sich der Theorie nach verhalten sollte. Die Staatseinmischung hat nämlich das naturgemäße ökonomische Verhältnis verfälscht. Man muß daher die nationalen Arbeitslöhne so berechnen, als ob der Teil derselben, der dem Staat in der Form von Steuern zufällt, dem Arbeiter selbst zufließe. Sollte Herr Carey nicht weiter darüber nachdenken, ob diese „Staatskosten“ nicht auch „naturgemäße Früchte“ der kapitalistischen Entwicklung sind?

↑ Carey thinks that state intervention is a falsification extraneous to the nature of the economic relations. The state should therefore be abstracted away if one wants to know the effects of the economy itself. Marx argues against this that state intervention is a natural consequence of the economy.

5. [Carey's Theory of Capitalist Phenomena Interfering with Capitalism]

This is all that Marx says about Carey's wage theory. In the rest of the footnote, he ridicules Carey's theory which attributes all negative consequences of capitalism to contaminations which prevent capitalism from being pure.

His reasoning is quite worthy of the man who, first of all, declared that capitalist relations of production were eternal laws of nature and reason, whose free and harmonious working was only disturbed by the intervention of the state, and then discovered afterwards that state intervention, i.e. the defence of those laws of nature and reason by the state, protectionism, was necessitated by the diabolical influence of England on the world market, an influence which, it appears, does not spring from the natural laws of capitalist production. He discovered, further, that the theorems of Ricardo and others, in which existing social antagonisms and contradictions are formulated, are not the ideal product of the real economic movement, but, on the contrary, that the real antagonisms of capitalist production in England and elsewhere are the result of the theories of Ricardo and others! Finally he dis-

Das Raisonement ist ganz des Mannes würdig, der die kapitalistischen Produktionsverhältnisse erst für ewige Natur- und Vernunftsgesetze erklärte, deren frei harmonisches Spiel nur durch die Staatseinmischung gestört werde, um hinterher zu entdecken, daß Englands diabolischer Einfluß auf den Weltmarkt, ein Einfluß, der, wie es scheint, nicht den Naturgesetzen der kapitalistischen Produktion entspringt, die Staatseinmischung nötig macht, nämlich den Schutz jener Natur- und Vernunftsgesetze durch den Staat, alias das Protektionssystem. Er entdeckte ferner, daß die Theoreme Ricardos usw., worin existierende gesellschaftliche Gegensätze und Widersprüche formuliert sind, nicht das ideale Produkt der wirklichen ökonomischen Bewegung, sondern daß umgekehrt die wirklichen Gegensätze der kapitalistischen Produktion in England und anderswo das Re-

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covered that it is, in the last resort, trade which destroys the inborn beauties and harmonies of the capitalist mode of production. A step further, and he will perhaps discover that the one evil in capitalist production is capital itself. Only a man with such an atrocious lack of the critical faculty, and such spurious erudition, deserved, in spite of his Protectionist heresy, to become the secret source of the harmonious wisdom of a Bastiat, and of all the other free-trade optimists of the present day.

sultat der Ricardoschen usw. Theorie sind! Er entdeckte schließlich, daß es in letzter Instanz der Handel ist, der die eingebornen Schönheiten und Harmonien der kapitalistischen Produktionsweise vernichtet. Noch einen Schritt weiter, und er entdeckt vielleicht, daß der einzige Mißstand an der kapitalistischen Produktion das Kapital selbst ist. Nur ein Mann von so entsetzlicher Kritiklosigkeit und solcher Gelehrsamkeit de faux aloi verdiente, trotz seiner protektionistischen Ketzerei, die Geheimquelle der harmonischen Weisheit eines Bastiat und aller andern freihändlerischen Optimisten der Gegenwart zu werden.

Note the dialectics of Carey: he is so uncritical that he is only one step away from being critical, i.e., of finding out that “the one evil in capitalist production is capital itself.”

Question 1147 *Does Marx agree or disagree with Carey’s finding that countries with higher productivity have higher wage?*

Question 1148 *How does Marx refute Carey’s theory that it is the intervention of the state which disturbs the free, harmonious working of the capitalistic relations of production?*

Part VII.

The Accumulation Process of Capital

The discussion of accumulation is the crowning part of the first volume of *Capital*. Marx shows here how capitalist production not only reproduces itself but becomes bigger and bigger. This gives us the historical tendency of the capitalist mode of production, however on the other hand it fails to explain how the historical presuppositions of capital have been created (see 704:1 about this).

The introductory passage of part VII argues why accumulation of capital should be discussed next. ↓ Marx looks at the circuit of capital $M-C-M'-C'-M''$ etc. and asks which phases of this circuit have already been discussed, and which still need discussion.

564:1 The transformation of a sum of money into means of production and labor-power is the first phase of the movement undergone by the quantum of value which is going to function as capital. It takes place in the market, within the sphere of circulation. The second phase of the movement, the process of production, is complete as soon as the means of production have been converted into commodities whose value exceeds that of their component parts, and therefore contains the capital originally advanced plus a surplus-value.

589:1 Die Verwandlung einer Geldsumme in Produktionsmittel und Arbeitskraft ist die erste Bewegung, die das Wertquantum durchmacht, das als Kapital fungieren soll. Sie geht vor auf dem Markt, in der Sphäre der Zirkulation. Die zweite Phase der Bewegung, der Produktionsprozeß, ist abgeschlossen, sobald die Produktionsmittel verwandelt sind in Ware, deren Wert den Wert ihrer Bestandteile übertrifft, also das ursprünglich vorgeschossene Kapital plus eines Mehrwerts enthält.

↑ These two phases were discussed so far. ↓ Now what is the next phase?

These commodities must then again be thrown into the sphere of circulation. They must be sold, their value must be realized in money, this money must be transformed once again into capital, and so on, again and again. This cycle, in which the same phases are continually traversed in succession, constitutes the circulation of capital.

Diese Waren müssen alsdann wiederum in die Sphäre der Zirkulation geworfen werden. Es gilt, sie zu verkaufen, ihren Wert in Geld zu realisieren, dies Geld aufs neue in Kapital zu verwandeln, und so stets von neuem. Dieser immer dieselben sukzessiven Phasen durchmachende Kreislauf bildet die Zirkulation des Kapitals.

This realisation process has not yet been discussed, and one might expect it to be the next point on the agenda. ↓ But no, this phase will be discussed in volume Two. Instead, as the reader should be aware from the title of part VII, the next topic to be discussed is accumulation. In other words, we are going to discuss accumulation before having discussed an important condition of accumulation:

564:2 The first condition of accumulation is that the capitalist managed to sell his commodities, and to reconvert into capital the greater part of the money received from their sale. In the following pages, we shall assume that capital passes through its process of circulation in the normal way. The detailed analysis of the process will be found in Volume 2.

589:2 Die erste Bedingung der Akkumulation ist, daß der Kapitalist es fertiggebracht hat, seine Waren zu verkaufen und den größten Teil des so erhaltenen Geldes in Kapital rückzuverwandeln. Im folgenden wird vorausgesetzt, daß das Kapital seinen Zirkulationsprozeß in normaler Weise durchläuft. Die nähere Analyse dieses Prozesses gehört ins Zweite Buch.

↑ Marx uses the term “accumulation” here without having defined it. A formal definition can be found in 578:1. ↓ The realisation of the newly produced value is not the only presupposition of accumulation disregarded at this point—i.e., Marx assumes this condition is

satisfied without explaining how:

564:3/o Although the capitalist who produces surplus-value, i.e. who extracts unpaid labor directly from the workers and fixes it in commodities, is the first appropriator of this surplus-value, he is by no means its ultimate proprietor. He has to share it afterwards with capitalists who fulfil other functions in social production taken as a whole, with the owner of the land, and with yet other people. Surplus-value is therefore split up into various parts. Its fragments fall to various categories of persons, and take on various mutually independent forms, such as profit, interest, gains made through trade, ground rent, etc. We shall be able to deal with these modified forms of surplus-value only in Volume 3.

589:3 Der Kapitalist, der den Mehrwert produziert, d.h. unbezahlte Arbeit unmittelbar aus den Arbeitern auspumpt und in Waren fixiert, ist zwar der erste Aneigner, aber keineswegs der letzte Eigentümer dieses Mehrwerts. Er hat ihn hinterher zu teilen mit Kapitalisten, die andre Funktionen im großen und ganzen der gesellschaftlichen Produktion vollziehen, mit dem Grundeigentümer usw. Der Mehrwert spaltet sich daher in verschiedene Teile. Seine Bruchstücke fallen verschiedenen Kategorien von Personen zu und erhalten verschiedene, gegeneinander selbständige Formen, wie Profit, Zins, Handelsgewinn, Grundrente usw. Diese verwandelten Formen des Mehrwerts können erst im Dritten Buch behandelt werden.

After telling us all the things that will be discussed elsewhere, Marx explains now what will be discussed here under which assumptions:

565:1 On the one hand, then, we assume here that the capitalist sells the commodities he has produced at their value, and we shall not concern ourselves with their later return to the market, or the new forms that capital assumes while in the sphere of circulation, or the concrete conditions of reproduction hidden within those forms. On the other hand, we treat the capitalist producer as the owner of the entire surplus-value, or, perhaps better, as the representative of all those who will share the booty with him.

590:1 Wir unterstellen hier also einerseits, daß der Kapitalist, der die Ware produziert, sie zu ihrem Wert verkauft, und verweilen nicht weiter bei seiner Rückkehr zum Warenmarkt, weder bei den neuen Formen, die dem Kapital anschießen in der Zirkulationssphäre, noch den darin eingehüllten konkreten Bedingungen der Reproduktion. Andererseits gilt uns der kapitalistische Produzent als Eigentümer des ganzen Mehrwerts oder, wenn man will, als Repräsentant aller seiner Teilnehmer an der Beute.

These assumptions mean that Marx is not discussing the accumulation process as it occurs in the real world, but an abstraction, in which certain phenomena are disregarded in order to have an unobstructed look at certain mechanisms which govern the accumulation process.

We shall therefore begin by considering accumulation from an abstract point of view, i.e. simply as one aspect of the immediate process of production.

Wir betrachten also zunächst die Akkumulation abstrakt, d.h. als bloßes Moment des unmittelbaren Produktionsprozesses.

↑ The immediate process of production is the production as it occurs in the individual workshops and factories, as opposed to looking at the overall social process of production and reproduction. ↓ Next, Marx brings arguments why the discussion of accumulation can already be included in book I, although the circulation and the splitting up of surplus-value has not yet been discussed.

565:2 In so far as accumulation actually takes place, the capitalist must have suc-

590:2 Soweit übrigens Akkumulation stattfindet, gelingt dem Kapitalisten der Ver-

ceeded in selling his commodities, and in reconverting the money shaken loose from them into capital. Moreover, the break-up of surplus-value into various fragments does not affect either its nature or the conditions under which it becomes an element in accumulation. Whatever the proportion of surplus-value which the capitalist producer retains for himself, or yields up to others, he is the one who in the first instance appropriates it. What, therefore, is taken as given in our presentation of accumulation, is taken as given in the actual process of accumulation itself.

kauf der produzierten Ware und die Rückverwandlung des aus ihr gelösten Geldes in Kapital. Ferner: Der Bruch des Mehrwerts in verschiedene Stücke ändert nichts an seiner Natur noch an den notwendigen Bedingungen, worin er zum Element der Akkumulation wird. Welche Proportion des Mehrwerts der kapitalistische Produzent immer für sich selbst festhalte oder an andre abtrete, er eignet ihn stets in erster Hand an. Was also bei unsrer Darstellung der Akkumulation unterstellt wird, ist bei ihrem wirklichen Vorgang unterstellt.

↑ The fact that accumulation takes place shows that the circulation problem can be solved, and the productive capitalist is the first who appropriates the surplus-value. I.e., the two things which will be assumed here theoretically do hold in practice. (A similar argument is made in 179:3.)

↓ In the next passage, Marx argues that it is not only permissible, but also desirable to make these assumptions:

On the other hand, the simple, fundamental form of the process of accumulation is obscured both by the splitting-up of surplus-value and by the mediating movement of circulation. An exact analysis of the process, therefore, demands that we should, for a time, disregard all phenomena that conceal the workings of its inner mechanism.

Andrerseits verdunkeln die Zerspaltung des Mehrwerts und die vermittelnde Bewegung der Zirkulation die einfache Grundform des Akkumulationsprozesses. Seine reine Analyse erheischt daher vorläufiges Wegsehen von allen Phänomenen, welche das innere Spiel seines Mechanismus verstecken.

Question 1149 *What is accumulation of capital?*

Question 1150 *Which abstractions does Marx make when he discusses the accumulation process in the first volume of Capital, and why?*

23. Simple Reproduction

Here is a brief overview of chapter Twenty-Three:

(1) Every social production process must be continuous, because the members of society consume continuously. Some of this consumption is done in chunks (food and clothing), others is indeed continuous (heating, electricity, internet) with periodic variations. This means the production process is an ongoing process. Some production is periodic by nature (food) and cannot easily be made continuous, other production is indeed continuous.

The production process can be an ongoing production process only if it is a *reproduction process*, i.e., if part of the products re-enter production and replace the means of production used up. But this is not all. For capitalism to sustain itself, this reproduction of the means of production must also be reproduction of individual capitals and of the *capital relation itself*.

(2) After these general remarks, Marx defines *simple* reproduction, which is repeated production on the *same scale*. In simple reproduction, the processes making up social production do not change over time or show only periodic variation. The only change is that these processes are now seen in their repetition instead of as one-time events. This gives new insights. From this perspective, capitalist production no longer has certain characteristics which it seems to possess as an isolated process without connection to processes before or after. Marx makes six observations:

(a) Variable capital ceases to be value advanced, because (aa) before the worker consumes he has already produced more than he is allowed to consume, and (ab) the capitalist finances the money wage he is paying the worker by the sale of the fruits of the same worker's earlier labor.

(b) Constant capital also ceases to be value advanced, by a different mechanism, not by the production of the workers but by the consumption of the capitalists. As the production goes on, the original capital is consumed by the capitalists and what remains is replaced by the surplus produced by workers.

(c) Since wages do not rise substantially above subsistence level, the separation of the workers from the means of production is reproduced.

(d) Not only the productive but also the individual consumption of the workers becomes a moment of the accumulation of capital. Capitalists therefore benefit twofold, (da) from the wages they pay the workers (because these wages reproduce the working class, the sources of the capitalists' wealth), and (db) from the surplus-value they receive from the workers. Marx discusses some ideologies connected with the confusion of these two.

(e) While the working class reproduce themselves, they accumulate skills. Just like any social benefit of production, the capitalists think they, the capitalists, own the skills of their workers. Marx tells the story of a Mr. Potter who wanted to outlaw emigration of the skilled workers.

(f) Reproduction of the relations of production. It is no longer an accident that capitalist and laborer confront each other in the market as buyer and seller.

1. [Reproduction in General and Reproduction of Capitalism]

565:3 Whatever the social form of the production process, it must either be continuous or periodically go through the same phases.

It is obvious why a social production process must be either continuous or periodic. In a letter to Kugelmann Marx wrote: "Every child knows, that a nation which ceased to work, I will not say for a year, but even for a few weeks, would perish." Here in *Capital* Marx formulates it at follows:

A society can no more cease to produce than it can cease to consume.

591:1 Welches immer die gesellschaftliche Form des Produktionsprozesses, er muß kontinuierlich sein oder periodisch stets von neuem dieselben Stadien durchlaufen.

Sowenig eine Gesellschaft aufhören kann zu konsumieren, kann sie aufhören zu produzieren.

↑ Individuals can consume without producing, but a whole society cannot. Every social production process is necessarily an on-going process. ↓ But we haven't, until now, looked at it from this point of view. In order to capture those mechanisms which allow the production process to go on continuously or periodically, we must look at social production as a *reproduction process*. This perspective is especially relevant today, as the capitalist system is facing challenges in its ability to reproduce itself.

Question 1152 Do you see challenges for the world capitalist system at the present time to reproduce itself? If so, explain these challenges. [2013fa](#), [2012fa](#), [2011fa](#).

When viewed, therefore, as a connected whole, and in the constant flux of its incessant renewal, every social process of production is at the same time a process of reproduction.

In einem stetigen Zusammenhang und dem beständigen Fluß seiner Erneuerung betrachtet, ist jeder gesellschaftliche Produktionsprozess daher zugleich Reproduktionsprozess.

Any *production* process needs means of production to create a product. Besides availability of the means of production, also other conditions must be satisfied so that it can take place. A *reproduction* process is, by definition, a production process which replaces the means of production used up and also recreates the other conditions of production, so that production can go on. ↓ Which conditions must a production process satisfy to be a reproduction process?

565:4/o The conditions of production are at the same time the conditions of reproduction.

591:2 Die Bedingungen der Produktion sind zugleich die Bedingungen der Reproduktion.

↑ Once one knows the conditions necessary for production, one also knows the conditions which must be satisfied by a reproduction process—namely, the reproduction process must *maintain* the conditions of production. and *replace* those conditions which are used up in the production process. ↓ The most prominent *material* conditions of production are the means of production, therefore it follows:

No society can produce continually, i.e., reproduce, without continually reconverting a part of its products into means of production or elements of fresh production.

Keine Gesellschaft kann fortwährend produzieren, d.h. reproduzieren, ohne fortwährend einen Teil ihrer Produkte in Produktionsmittel oder Elemente der Neuproduktion rückzuverwandeln.

1. [Reproduction in General and Reproduction of Capitalism]

The French says here something slightly different: “Une société ne peut reproduire, c’est-à-dire

produire d’une manière continue, sans retransformer continuellement une partie de ses

produits en moyens de production, en éléments de nouveaux produits.”

↑ This is not the only condition for reproduction. In 567:2/o Marx mentions another condition of reproduction: the “labor fund” has to be maintained and replaced. ↓ Since all this suggests that somehow *more* has to be produced than the means of consumption of the population, it is natural to look at the quantitative aspect of it right from the beginning:

All other circumstances remaining the same, society can reproduce or maintain its wealth on the existing scale only by replacing the means of production which have been used up—i.e. the instruments of labor, the raw material and the auxiliary substances—with an equal quantity of new articles. These must be separated from the mass of the yearly product, and incorporated once again into the production process.

Unter sonst gleichbleibenden Umständen kann sie ihren Reichtum nur auf derselben Stufenleiter reproduzieren oder erhalten, indem sie die, während des Jahres z.B., verbrauchten Produktionsmittel, d.h. Arbeitsmittel, Rohmaterial und Hilfsstoffe, in natura durch ein gleiches Quantum neuer Exemplare ersetzt, welches von der jährlichen Produktenmasse abgeschieden und von neuem dem Produktionsprozeß einverleibt wird.

↑ The conditions of reproduction do therefore not require that *more* should be produced—on the contrary, the scale of production is assumed to be constant—but they require a specific partition each year’s product into final product and means of production to replace those used up. The reproduction structure is therefore inscribed in the composition of the bundle of *use-values* produced by society:

A specific portion of each year’s product belongs therefore to the sphere of production. Destined for productive consumption from the very first, this portion exists, for the most part, in a bodily form which by its very nature excludes the possibility of individual consumption.

Ein bestimmtes Quantum des jährlichen Produkts gehört also der Produktion. Von Haus aus für die produktive Konsumtion bestimmt, existiert es größtenteils in Naturalformen, die von selbst die individuelle Konsumtion ausschließen.

↓ After formulating this *general* condition of reproduction, Marx turns to *capitalist* reproduction. Reproduction under capitalism is capitalist production which not only replaces the means of production it uses up but which, in addition, also *reproduces the capitalist relations of production*.

566:1 If production has a capitalist form, so too will reproduction.

591:3/o Hat die Produktion kapitalistische Form, so die Reproduktion.

↑ We know what it means to say that *production* has capitalist form: it means that the capitalist directs production and uses it as a means to create surplus-value. ↓ But Marx adds here that *reproduction* is also done for capitalist interests.

Just as the labor process, in the capitalist mode of production, appears only as a means for the process of valorization, so reproduction appears only as a means for reproducing the value advanced as capital, i.e. as self-valorizing value.

Wie in der kapitalistischen Produktionsweise der Arbeitsprozeß nur als ein Mittel für den Verwertungsprozeß erscheint, so die Reproduktion nur als ein Mittel, den vorge-schoßnen Wert als Kapital zu reproduzieren, d.h. als sich verwertenden Wert.

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The Moore-Aveling translation of this last sentence draws a parallel to the preceding sentence, which is a good feature, but this translation incorrectly makes the labor process the subject in the latter part of the sentence: “Just as in the former the labour-process figures

but as a means towards the self-expansion of capital, so in the latter it figures but as a means of reproducing as capital—i.e., as self-expanding value—the value advanced.” Fowkes’s translation is a paraphrase of Moore-Aveling, which echoes the same mistake:

“Just as in the capitalist mode of production the labor process appears only as a means towards the process of valorization, so in the case of reproduction it appears only as a means of reproducing the value advanced as capital, i.e. as self-valorizing value.”

↑ The laws of capital are not fulfilled with a one-time profit, they require the ceaseless making of profits, see [163:1/o](#). The capitalist can remain capitalist for an extended period of time only because the production process under his direction is at the same time also a reproduction process replacing the means of production used up. He will see to it that reproduction takes place so that he can remain capitalist. And indeed, in every factory there are not only production workers producing the end product, but also maintenance workers fixing and replacing the means of production.

Question 1153 *Marx writes: “the labor process, in the capitalist mode of production, appears only as a means for the process of valorization.” Why does he use the word “appears” here, and why did he put an “only” into this sentence? Shouldn’t he have said “the labor process is means for the process of valorization”?* [2010fa](#), [2009fa](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#).

Question 1154 *What are the conditions of reproduction of a capitalist system, i.e., which conditions must be satisfied that the capitalist production process can deliver a steady stream of consumption goods for the population and at the same time retain its capitalist character?* [2013fa](#), [2012fa](#).

The socialist countries did not have strong enough mechanisms in place enforcing that social production would be reproduction: many investment projects were started by one planner but not finished by his or her successor and lingered on for years or decades in a half-finished state. In capitalism, a capitalist has the motivation to see his investment projects through: if he does not succeed, he may go bankrupt. This close linkage also has its downside: if individual businesses fail, the reproduction of the entire system may be endangered.

Exam Question 1156 *How is the capitalist motivated to see to it that the social conditions of reproduction are met?* [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2007fa](#), [2007SP](#), [2002fa](#).

Question 1157 *Marx says that the desire to remain a capitalist causes capitalists to do things which are good for the reproduction of the capitalist economy. Can the goal of firms to maintain themselves as viable capitalist enterprises also be an obstacle to the reproduction of the economy?* [2012fa](#).

However strongly an individual capitalist may wish to remain a capitalist, these wishes will not have a chance to be fulfilled unless they conform with the general laws of capital. But Marx shows that they do conform. No surprise. Did they not conform, no capitalists would be around to have these wishes.

We already saw in chapter Four, [162:2/o](#), that the continuous making of profits is aided by the circumstance that qualitatively, the endpoint in the circuit $M - C - M'$ is the same as the beginning point, so that capital emerges from the circuit in a form ready to start the circuit

1. [Reproduction in General and Reproduction of Capitalism]

over again. The capitalist, in turn, arranges the production process as a continuous process, in order to be able to remain capitalist.

The economic character mask of a capitalist is fixed to one and the same person only by his money continuing to function as capital.

Die ökonomische Charaktermaske des Kapitalisten hängt nur dadurch an einem Menschen fest, daß sein Geld fortwährend als Kapital funktioniert.

The term “character mask” was introduced in chapter Two, 94:4/o, to describe the roles of buyer and seller. Whereas the roles of buyer and seller are not continually attached to the same person—everyone is sometimes buyer and sometimes seller—the character mask of a capitalist has a much more permanent nature. Of course, there is no *guarantee* that a capitalist today will remain capitalist tomorrow, but the structure of capitalist production is such that this is usually the case. And by their efforts to remain capitalists, the capitalists ensure the continuity of the social reproduction process.

↓ With the same persons permanently occupying the role of capitalist, profit becomes a *revenue*:

If, for instance, a sum of £ 100 has this year been converted into capital, and has produced a surplus-value of £ 20, it must continue during the next year, and subsequent years, to repeat the same operation. As a periodic increment of the value of the capital, or a periodic fruit borne by capital-in-process, surplus-value acquires the form of a revenue arising out of capital.¹

Hat z.B. die vorgeschobne Geldsumme von 100 Pfd.St. sich dieses Jahr in Kapital verwandelt und einen Mehrwert von 20 Pfd.St. produziert, so muß sie das nächste Jahr usf. dieselbe Operation wiederholen. Als periodisches Inkrement des Kapitalwerts, oder periodische Frucht des prozessierenden Kapitals, erhält der Mehrwert die Form einer aus dem Kapital entspringenden Revenue.¹

A revenue is a steady flow of income for a given recipient. The footnote illustrates the wondrous character of such a flow:

¹ ‘The rich, who consume the products of the labor of others, can only obtain them by making exchanges’ (purchases of commodities). ‘They therefore seem to be exposed to an early exhaustion of their reserve funds ... But, in the social order, wealth has acquired the power of reproducing itself through the labor of others ... Wealth, like labor, and by means of labor, bears fruit every year, but this fruit can be destroyed every year without making the rich man any poorer thereby. This fruit is the revenue which arises out of capital’ (Sismondi, *Nouveaux Principes d’économie politique*. Paris, 1819, Vol. 1, pp. 81–2).

¹ „Die Reichen, welche die Produkte der Arbeit andrer verzehren, erhalten sie nur durch Austauschakte (Warenkäufe). Sie scheinen daher einer baldigen Erschöpfung ihrer Reservefonds ausgesetzt ... Aber in der gesellschaftlichen Ordnung hat der Reichtum die Kraft erhalten, sich durch fremde Arbeit zu reproduzieren ... Der Reichtum, wie die Arbeit und durch die Arbeit, liefert eine jährliche Frucht, welche jedes Jahr vernichtet werden kann, ohne daß der Reiche ärmer wird. Diese Frucht ist die Revenue, die aus dem Kapital entspringt.“—(Sismondi, „Nou. Princ. d’Écon. Pol.“, t. 1, p. 81, 82.)

↑ The self-moving power of capital becomes beneficial for the revenue holder. Revenues are the main point of contact between the economic deep structure and individual interests. Revenues will therefore be discussed more at the end of *Capital III*, when Marx gets ready to speak about classes.

↓ Chapters Twenty-Three and Twenty-Four are organized according to how the revenue of the capitalists is divided into new capital investment and means of consumption.

566:2/o If this revenue serves the capitalist only as a fund to provide for his con-

592:1 Dient diese Revenue dem Kapitalisten nur als Konsumtionsfonds oder wird

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sumption, i.e., if it is consumed as periodically as it is gained, then, other things being equal, simple reproduction takes place.

sie ebenso periodisch verzehrt wie gewonnen, so findet, unter sonst gleichbleibenden Umständen, einfache Reproduktion statt.

↑ Marx does not mean to imply here that simple reproduction is a possible mode of operation for capitalism. It can be this only temporarily; in the long run capital must accumulate. Marx makes this simplifying assumption here only because it allows him to identify those characteristics of the capitalist production process which are not due to production, nor due to accumulation, but due to the *continuity* of production. As always, Marx carefully distinguishes which mechanism is responsible for which fact or event.

Exam Question 1158 *Isn't simple reproduction against the laws of capital, which must accumulate? Why does Marx make an assumption which is at odds with the essence of capitalism?*

↓ Marx announces that this change in viewpoint will give new results.

And although this reproduction is a mere repetition of the process of production on the same scale as before, this mere repetition, or continuity, imposes on the process certain new characteristics, or rather, dissolves certain characteristics which the isolated process seems to have.

Obgleich letztere nun bloße Wiederholung des Produktionsprozesses auf derselben Stufenleiter, drückt diese bloße Wiederholung oder Kontinuität dem Prozesse gewisse neue Charaktere auf oder löst vielmehr die Scheincharaktere seines nur vereinzeltten Vorgangs auf.

Just like chapter Nineteen, chapter Twenty-Three also discusses misleading appearances of capitalism. How can a process obtain new characteristics by mere repetition? If you look at the manifestations of an underlying “real” mechanism as a continuous process, you may be able to get a more accurate picture of the workings of this mechanisms than if you only see a snapshot of it. Hegel said: “the truth is the whole.” This has more than epistemological relevance. The economic agents make only punctual interactions with the capitalist system, their practical activity is guided by such a snapshot view.

Question 1159 *Marx claims that the mere repetition, or continuity, of the capitalist production process dissolves certain illusory characteristics possessed by this process in isolation. Give concrete examples of such illusory characteristics, either those which Marx is discussing, or others. 2013fa, 2008fa, 2007fa, 2007SP, 2005fa, 2003fa, 2002fa.*

Starting now until the end of the chapter, Marx discusses specific characteristics of the capitalist production process that change if one no longer looks at them from an individualistic and one-time point of view. Although Marx emphasizes continuity as the new angle brought into the discussion, some of Marx's arguments do not depend on continuity but represent a switch from an individualistic to a social point of view. In at least three places, at the end of 567:1, and at the beginning of 571:3/o and 573:1, Marx says this explicitly.

The changes which Marx points out here can be classified into two categories: (1) Things which appear as advances by the capitalists are no longer advances, and (2) the expanded horizon allows us to see how the separation between the producers and the means of production is reproduced.

2. [Advances by the Capitalists Cease to Be Advances]

Marx brings here two arguments, one specific to the variable capital, and one applicable to all capital (as long as the capitalists consume part of their surplus-value).

2.a. [Variable Capital is Not Something Advanced by the Capitalists]

One of the main characteristics which capitalism seems to have, and which also seems to justify capitalist profits, is that the capitalist advances the variable capital to the worker. (Remember that the part of the capital advanced for wages is called “variable capital,” see chapter Eight, 219:2.)

Exam Question 1161 *Why is the part of the capital advanced for wages called “variable capital”? (The answer to this question cannot be inferred from the context here but this is a definition Marx made in chapter Eight.)* 2011fa, 2007fa, 2005fa, 2004fa, 2002fa, 2001fa, 2000fa, 1999SP.

The means of subsistence of the workers constitute a separate part of social output, the so-called “labor fund.” Marx argues that in all societies, the workers have to produce their own labor fund, and that also in capitalism, this labor fund is *not* something that the capitalists advance to the workers.

567:1 The purchase of labor-power for a fixed period is the prelude to the production process. This prelude is repeated again and again as soon as the period of time for which the labor-power has been sold comes to an end, and with it a definite period of production, such as a week or a month, has elapsed. But the worker is not paid until after he has expended his labor-power, and realized both the value of his labor-power and a certain quantity of surplus-value in the shape of commodities. He has therefore produced not only surplus-value, which we for the present regard as a fund to meet the private consumption of the capitalist, but also the variable capital, the fund out of which he himself is paid, before it flows back to him in the shape of wages; and his employment lasts only as long as he continues to reproduce this fund.

592:2/o Der Produktionsprozeß wird eingeleitet mit dem Kauf der Arbeitskraft für eine bestimmte Zeit, und diese Einleitung erneuert sich beständig, sobald der Verkaufstermin der Arbeit fällig und damit eine bestimmte Produktionsperiode, Woche, Monat usw., abgelaufen ist. Gezahlt wird der Arbeiter aber erst, nachdem seine Arbeitskraft gewirkt und sowohl ihren eignen Wert als den Mehrwert in Waren realisiert hat. Er hat also wie den Mehrwert, den wir einstweilen nur als Konsumtionsfonds des Kapitalisten betrachten, so den Fonds seiner eignen Zahlung, das variable Kapital produziert, bevor es ihm in der Form des Arbeitslohnes zurückfließt, und er wird nur so lange beschäftigt, als er ihn beständig reproduziert.

When Marx writes “the worker has reproduced the funds out of which he himself is paid,” he cannot mean money but must mean the real use-values which the worker buys with this money. Now a theory-critical side remark:

This is the reason for the formula of the economists, mentioned in chapter 18, under

Daher die im sechzehnten Kapitel unter II. erwähnte Formel der Ökonomen, die das Sa-

23. Simple Reproduction

II, which presents wages as a share in the product itself.²

² ‘Wages as well as profits are to be considered, each of them, as really a portion of the finished product’ (Ramsay, op. cit., p. 142). ‘The share of the product which comes to the worker in the form of wages’ (J. Mill, *Elements*, etc., transl. Parisot, Paris, 1823, pp. 33–4).

Since wages are paid *after* the worker has already produced more than an equivalent for them, the capitalist does not advance anything to the worker.

What flows back to the worker in the shape of wages is a portion of the product he himself continuously reproduces.

lair als Anteil am Produkt selbst darstellt.²

² „Löhne wie auch Profite sind beide als ein Teil des fertigen Produkts zu betrachten.“ (Ramsay, l.c. p. 142.) „Der Anteil an dem Produkt, der dem Arbeiter unter der Form des Salairs zukommt.“ (J. Mill, „*Elements* etc.“, Übers. von Parisot, Paris 1823, p. 33, 34.)

Es ist ein Teil des vom Arbeiter selbst beständig reproduzierten Produkts, das ihm in der Form des Arbeitslohns beständig zurückfließt.

↑ If the capitalist on pay day were to give the worker a part of the worker’s product, then it would be clear that wages are not an advance to the worker. ↓ But the capitalist gives money to the worker:

The capitalist, it is true, pays him the value of the commodity in money.

Der Kapitalist zahlt ihm den Warenwert allerding in Geld.

↑ Having value in one’s hands is not enough; money is necessary to get the use-values one needs. Money is the proof that the value one has produced indeed satisfies someone’s needs, i.e., that the labor one has spent is socially necessary. And since the capitalist gives money to the worker, while the worker delivers raw value to the capitalist which has not yet gone through this social validation, the question arises whether this conversion from the use-value form into the value form is an advance by the capitalist which justifies the profits. ↓ Marx’s response is: the money which the capitalist advances to the worker does not originally come from the capitalist, but the capitalist obtained this money from selling the worker’s earlier product. I.e., this process is in place without requiring additional input from the capitalist.

But this money is merely the transmuted form of the product of the worker’s labor. While he is converting a portion of the means of production into products, a portion of his former product is being turned into money. It is his labor of last week, or of last year, that pays for his labor-power this week or this year.

Dies Geld ist aber nur die verwandelte Form des Arbeitsprodukts. Während der Arbeiter einen Teil der Produktionsmittel in Produkt verwandelt, rückverwandelt sich ein Teil seines früheren Produkts in Geld. Es ist seine Arbeit von voriger Woche oder vom letzten halben Jahre, womit seine Arbeit von heute oder vom nächsten halben Jahr gezahlt wird.

The German edition says “labor” both times, while the Moore-Aveling translation says

labor first and then labor-power. This is one of the places where the Moore-Aveling translation is

better than the German.

In other words, this money does not come from the capitalist but from the worker, but with a time lag. One might think now that the capitalist advances the money at least for the four weeks until the worker’s product is sold. Perhaps this is why Marx gives now an alternative argument, which no longer looks at the temporal continuity of the process but broadens the field of vision to society as a whole. If one looks at the social process as a whole, as opposed to how it presents itself to the individual agents, one can see once again

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that the capitalist does not advance the wages to the worker. When the worker employed in the shoe factory eats bread, then he thinks the whereabouts for the bread are advanced to him by the capitalist. And the worker employed in the bread factory thinks the whereabouts for wearing shoes are advanced to him by the capitalist. But if both workers look at their situation jointly they can see that the capitalists do not advance anything to either of them. Together the workers produce shoes and bread, and when the workers consume shoes and bread, they have already produced more shoes and bread.

The illusion created by the money-form vanishes immediately if, instead of taking a single capitalist and a single worker, we take the whole capitalist class and the whole working class. The capitalist class is constantly giving to the working class drafts, in the form of money, on a portion of the product produced by the latter and appropriated by the former.

Die Illusion, welche die Geldform erzeugt, verschwindet sofort, sobald statt des einzelnen Kapitalisten und des einzelnen Arbeiters Kapitalistenklasse und Arbeiterklasse betrachtet werden. Die Kapitalistenklasse gibt der Arbeiterklasse beständig in Geldform Anweisungen auf einen Teil des von der letzteren produzierten und von der ersten angeeigneten Produkts.

↑ I.e., the capitalists give the workers permission to buy a part of the product back which they have stolen from the workers:

The workers give these drafts back just as constantly to the capitalists, and thereby withdraw from the latter their allotted share of their own product.

Diese Anweisungen gibt der Arbeiter der Kapitalistenklasse ebenso beständig zurück und entzieht ihr damit den ihm selbst zufallenden Teil seines eignen Produkts.

With all the above, Marx makes the point that the labor fund is not something advanced by the capitalist.

The commodity-form of the product and the money-form of the commodity veil the transaction.

Die Warenform des Produkts und die Geldform der Ware verkleiden die Transaktion.

The nature of this transaction is the continuous appropriation of the workers' product by the capitalists. On the surface, this transaction presents itself in a veiled or distorted form in two ways:

- exploitation is not visible;
- instead it seems as if the capitalist were advancing the wage to the worker.

At the present time, Marx only makes a brief allusion to the first point which had been made repeatedly before. The commodity form of the product veils exploitation because the worker is not aware that the product he produced has value, because it has not yet been sold. The money form of the commodity veils exploitation because the worker does not see that the money he receives from the capitalist is the money form of value which the worker has produced himself. All this will be developed in much more detail in chapter Twenty-Four, 582:1/o.

Exam Question 1162 Explain in your own words how the commodity form of the product and the money form of the commodity veil exploitation. 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1999SP.

Once one sees the exploitative nature of the transaction between worker and capitalist, one can also penetrate the illusion that the capitalist advances something to the worker when

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he gives him the wage. It is true, the “wage fund” is a separate portion of the economy’s output, but it is not something which the capitalist gives to the worker:

567:2/o Variable capital is therefore only a particular historical form in which the labor fund appears, the fund for providing the means of subsistence which the worker requires for his own maintenance and reproduction, and which, in all systems of social production, he must himself produce and reproduce. If the labor-fund constantly flows to him in the form of money that pays for his labor, it is because his own product constantly moves away from him in the form of capital.

The reality of wages is that it is not something the capitalist gives the worker but something the working class themselves produce. The illusion that the variable capital flows to the worker arises only because the worker does not see that his own product flows away from him. The capital which the capitalist uses as pretext to exploit him is the worker’s own product.

Exam Question 1163 *How does the illusion arise that the capitalist advances something to the worker when he pays him a wage?* 2012fa, 2008fa, 2008SP, 2005fa, 2002fa, 2001fa, 2000fa, 1999SP.

If wages are not advanced by the capitalist to the worker, where do they come from? Answer: from the earlier labor of the worker. For this second step in the argument we must look at the production process as a continuous process.

But this form of appearance of the labor-fund does not change the fact that it is the worker’s own objectified labor which is advanced to him by the capitalist.³

³ ‘When capital is employed in advancing to the workman his wages, it adds nothing to the funds for the maintenance of labor’ (Cazenove, in a note to his edition of Malthus’s *Definitions in Political Economy*, London, 1853, p. 22).

593:1/o Das variable Kapital ist also nur eine besondere historische Erscheinungsform des Fonds von Lebensmitteln oder des Arbeitsfonds, den der Arbeiter zu seiner Selbsterhaltung und Reproduktion bedarf und den er in allen Systemen der gesellschaftlichen Produktion stets selbst produzieren und reproduzieren muß. Der Arbeitsfonds fließt ihm nur beständig in Form von Zahlungsmitteln seiner Arbeit zu, weil sein eignes Produkt sich beständig in der Form des Kapitals von ihm entfernt.

Aber diese Erscheinungsform des Arbeitsfonds ändert nichts daran, daß dem Arbeiter seine eigne vergegenständlichte Arbeit vom Kapitalisten vorgeschossen wird.³

³ „Wenn Kapital verwandt wird, um dem Arbeiter seinen Lohn vorzuschießen, fügt es dem Fonds zur Erhaltung der Arbeit nichts hinzu.“ (Cazenove in Note zu seiner ed. von Malthus’ „Definitions in Polit. Econ.“, London 1853, p. 22.)

In order to clarify this, Marx compares the wage laborer with a bonded peasant:

Let us take a peasant liable to do compulsory labor services. He works on his own land with his own means of production for, say, three days a week. The other three days are devoted to forced labor on the lord’s domain. He constantly reproduces his own labor-fund, which never, in his case, takes the form of a money payment for his labor, advanced by another person. But in return his unpaid and forced labor for the

Nehmen wir einen Fronbauer. Er arbeitet mit seinen eignen Produktionsmitteln auf seinem eignen Acker z.B. 3 Tage in der Woche. Die drei andren Wochentage verrichtet er Fronarbeit auf dem herrschaftlichen Gut. Er reproduziert seinen eignen Arbeitsfonds beständig, und dieser erhält ihm gegenüber nie die Form von einem Dritten für seine Arbeit vorgeschößner Zahlungsmittel. Im Ersatz erhält auch niemals seine unbezahlte

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lord never acquires the character of voluntary and paid labor. If one, fine morning, the landowner appropriates to himself the plot of land, the cattle, the seed, in short, the means of production of the peasant, the latter will thenceforth be obliged to sell his labor-power to the former. He will, other things being equal, labor six days a week as before, three for himself, three for his former lord, who thenceforth becomes a wage-paying capitalist. As before, he will use up the means of production as means of production, and transfer their value to the product. As before, a definite portion of the product will be devoted to reproduction.

Zwangsarbeit die Form freiwilliger und bezahlter Arbeit. Wenn morgen der Gutsherr den Acker, das Zugvieh, die Samen, kurz die Produktionsmittel des Fronbauern sich selbst aneignet, so hat dieser von nun an seine Arbeitskraft an den Fronherrn zu verkaufen. Unter sonst gleichbleibenden Umständen wird er nach wie vor 6 Tage in der Woche arbeiten, 3 Tage für sich selbst, 3 für den Exfronherrn, der jetzt in einen Lohnherrn verwandelt ist. Er wird nach wie vor die Produktionsmittel als Produktionsmittel vernutzen und ihren Wert auf das Produkt übertragen. Nach wie vor wird ein bestimmter Teil des Produkts in die Reproduktion eingehn.

↑ Marx makes a similar argument in chapter Ten, 244:1, regarding *corvée*. Exploitation is unchanged, only its form is changed, it takes the form of voluntary paid labor. ↓ The advance by the capitalist is likewise a formal superficial artifact.

But from the moment that forced labor is changed into wage-labor, the labor-fund, which the peasant himself continues as before to produce and reproduce, takes the form of a quantity of capital advanced in the form of wages by the lord of the land.

Wie aber die Fronarbeit die Form der Lohnarbeit, nimmt der vom Fronbauer nach wie vor produzierte und reproduzierte Arbeitsfonds die Form eines ihm vom Fronherrn vorgeschoßnen Kapitals an.

↓ Now an entirely different argument:

The bourgeois economist, whose limited brain is unable to separate the form of appearance from the thing which appears within that form, shuts his eyes to the fact that even at the present time the labor-fund only crops up exceptionally on the face of the globe in the form of capital.⁴

Der bürgerliche Ökonom, dessen beschränktes Hirn die Erscheinungsform von dem, was darin erscheint, nicht trennen kann, schließt die Augen vor der Tatsache, daß selbst noch heutzutage der Arbeitsfonds nur ausnahmsweis auf dem Erdrund in der Form von Kapital auftritt.⁴

⁴ ‘The wages of labor are advanced by capitalists in the case of less than one-fourth of the laborers of the earth’ (Richard Jones, Textbook of Lectures on the Political Economy of Nations, Hertford, 1852, p. 36).

⁴ „Die Subsistenzmittel der Arbeiter werden noch nicht auf einem Viertel der Erde den Arbeitern durch Kapitalisten vorgeschoßen.“ (Richard Jones, „Textbook of Lectures on the Political Economy of Nations“, Hertford 1852, p. 36.)

2.b. [Any Initial Advances by the Capitalists Replaced by Surplus-Value]

Next, Marx addresses a possible objection to the argument just made about the wage fund: certainly the *original* wage advanced by the *first* capitalist must have been a true advance.

568:1/o Variable capital, it is true, only then loses its character of a value advanced out of the capitalist’s funds,⁵ when we view the process of capitalist production in the

594:1 Allerdings verliert das variable Kapital nur den Sinn eines aus dem eigenen Fonds des Kapitalisten vorgeschoßenen Wertes,^{4a} sobald wir den kapitalisti-

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flow of its constant renewal. But that process must have had a beginning of some kind. From our present standpoint it therefore seems likely that the capitalist, once upon a time, became possessed of money, by some accumulation that took place independently of the unpaid labor of others, and that this was, therefore, how he was enabled to frequent the market as a buyer of labor-power.

^{4a} "Though the manufacturer" (i.e., the laborer) "has his wages advanced to him by his master, he in reality costs him no expense, the value of these wages being generally reserved, together with a profit, in the improved value of the subject upon which his labor is bestowed." (A. Smith, l.c., Book II., ch. III, p. 311.)

A comprehensive answer to the question of the initial advances will be given in the chapter about original accumulation. At the present time Marx brings an argument according to which, *regardless* of what happened at the beginning, the continuity of the production process over time whittles down any initial contributions from the capitalist. This argument applies not only to wages but to every advance by the capitalists.

However this may be, the mere continuity of the process, the simple reproduction, brings about some other wonderful changes, which affect not only the variable, but the total capital.

569:1 If a capital of £1,000 beget yearly a surplus-value of £200, and if this surplus-value be consumed every year, it is clear that at the end of 5 years the surplus-value consumed will amount to $5 \times £200$ or the £1,000 originally advanced. If only a part, say one half, were consumed, the same result would follow at the end of 10 years, since $10 \times £100 = £1,000$. General Rule: The value of the capital advanced divided by the surplus-value annually consumed, gives the number of years, or reproduction periods, at the expiration of which the capital originally advanced has been consumed by the capitalist and has disappeared. The capitalist thinks, that he is consuming the produce of the unpaid labor of others, i.e., the surplus-value, and is keeping intact his original capital; but what he thinks cannot alter

schen Produktionsprozeß im beständigen Fluß seiner Erneuerung betrachten. Aber er muß doch irgendwo und irgendwann anfangen. Von unsrem bisherigen Standpunkt ist es daher wahrscheinlich, daß der Kapitalist irgendeinmal durch irgendeine, von unbezahlter fremder Arbeit unabhängige, ursprüngliche Akkumulation Geldbesitzer ward und daher den Markt als Käufer von Arbeitskraft beschreiten konnte.

^{4a} „Obgleich der manufacturer“ (i.e. Manufakturarbeiter) „seinen Lohn vom Meister vorgeschossen bekommt, verursacht er diesem in Wirklichkeit keine Kosten, da der Wert des Lohns zusammen mit einem Profit gewöhnlich in dem veredelten Wert des Gegenstands, auf den seine Arbeit verwandt wurde, wiederhergestellt wird.“ (A. Smith l.c., Book II, ch. III, p. 355.)

Indes bewirkt die bloße Kontinuität des kapitalistischen Produktionsprozesses, oder die einfache Reproduktion, noch andre sonderbare Wechsel, die nicht nur den variablen Kapitalteil ergreifen, sondern das Gesamtkapital.

594:2 Beträgt der mit einem Kapital von 1000 Pfd.St. periodisch, z.B. jährlich, erzeugte Mehrwert 200 Pfd.St. und wird dieser Mehrwert jährlich verzehrt, so ist es klar, daß nach fünfjähriger Wiederholung desselben Prozesses die Summe des verzehrten Mehrwerts $= 5 \times 200$ ist oder gleich dem ursprünglich vorgeschossenen Kapitalwert von 1000 Pfd.St. Würde der jährliche Mehrwert nur teilweise verzehrt, z.B. nur zur Hälfte, so ergäbe sich dasselbe Resultat nach zehnjähriger Wiederholung des Produktionsprozesses, denn $10 \times 100 = 1000$. Allgemein: Der vorgeschossene Kapitalwert, dividiert durch den jährlich verzehrten Mehrwert, ergibt die Jahresanzahl oder die Anzahl von Reproduktionsperioden, nach deren Ablauf das ursprünglich vorgeschossene Kapital vom Kapitalisten aufgezehrt und daher verschwun-

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facts.

den ist. Die Vorstellung des Kapitalisten, daß er das Produkt der fremden unbezahlten Arbeit, den Mehrwert, verzehrt und den ursprünglichen Kapitalwert erhält, kann absolut nichts an der Tatsache ändern.

Question 1164 *Does the capitalist, who started a business with his own capital, preserve this capital while consuming surplus-value, or does he consume his original capital and replace it with accumulated surplus-value?* 2011fa, 2010fa, 2009fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa.

After the lapse of a certain number of years, the capital value he then possesses is equal to the sum total of the surplus-value appropriated by him during those years, and the total value he has consumed is equal to that of his original capital. It is true, he has in hand a capital whose amount has not changed, and of which a part, viz., the buildings, machinery, etc., were already there when the work of his business began. But what we have to do with here, is not the material elements, but the value, of that capital.

Nach Abfluß einer gewissen Jahreszahl ist der von ihm geeignete Kapitalwert gleich der Summe des während derselben Jahreszahl ohne Äquivalent angeeigneten Mehrwerts und die von ihm verzehrte Wertsumme gleich dem ursprünglichen Kapitalwert. Allerdings behält er in der Hand ein Kapital, dessen Größe sich nicht verändert hat, wovon ein Teil, Gebäude, Maschinen usw., bereits vorhanden war, als er sein Geschäft in Gang brachte. Aber hier handelt es sich vom Wert des Kapitals und nicht von seinen materiellen Bestandteilen.

The debtor example describes an analogous situation; there is no implication that the capitalist himself owes anything.

When a person gets through all his property, by taking upon himself debts equal to the value of that property, it is clear that his property represents nothing but the sum total of his debts. And so it is with the capitalist; after he has consumed the equivalent of his original capital, the value of his present capital merely represents the sum total of surplus-value appropriated by him without payment. Not a single atom of the value of his old capital continues to exist.

Wenn jemand sein ganzes Besitztum aufzehrt dadurch, daß er Schulden aufnimmt, die dem Wert dieses Besitztums gleichkommen, so repräsentiert eben das ganze Besitztum nur die Gesamtsumme seiner Schulden. Und ebenso, wenn der Kapitalist das Äquivalent seines vorgeschossenen Kapitals aufgezehrt hat, repräsentiert der Wert dieses Kapitals nur noch die Gesamtsumme des von ihm unentgeltlich angeeigneten Mehrwerts. Kein Wertatom seines alten Kapitals existiert fort.

Question 1165 *Explain the following passage: "After the capitalist has consumed the equivalent of his original capital, the value of his present capital merely represents the sum total of surplus-value appropriated by him without payment. Not a single atom of the value of his old capital continues to exist."* 2013fa, 2012fa, 2009fa, 2008fa, 2007fa, 2004fa, 2003fa, 2002fa, 2001fa.

570:1 Apart then from all accumulation, the mere continuity of the process of production, in other words simple reproduction, sooner or later, and of necessity, converts

595:1 Ganz abgesehen von aller Akkumulation verwandelt also die bloße Kontinuität des Produktionsprozesses, oder die einfache Reproduktion, nach kürzerer oder längerer

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every capital into accumulated capital, or capitalised surplus-value. Even if that capital was originally acquired by the personal labor of its employer, it sooner or later becomes value appropriated without an equivalent, the unpaid labor of others materialised either in money or in some other object.

Periode jedes Kapital notwendig in akkumuliertes Kapital oder kapitalisierten Mehrwert. War es selbst bei seinem Eintritt in den Produktionsprozeß persönlich erarbeitetes Eigentum seines Anwenders, früher oder später wird es ohne Äquivalent angeeigneter Wert oder Materiatur, ob in Geldform oder anders, unbezahlter fremder Arbeit.

This method of calculation also suggests a fair strategy for the transfer of the ownership of the means of production from the capitalists to the working class in socialism: the capitalists are allowed to eat up an equivalent of their equity in the means of production, but they are no longer allowed to appropriate new surplus-value or exercise control over the means of production.

3. [Reproduction of the Separation of the Producers from the Means of Production]

↓ Marx said already in 177:1 in chapter Six that the separation between producer and means of production is a condition for capitalism.

We saw in chapter Six that in order to convert money into capital something more is required than the production and circulation of commodities. We saw that on the one side the possessor of value or money, on the other, the possessor of the value-creating substance; on the one side, the possessor of the means of production and subsistence, on the other, the possessor of nothing but labor-power, must confront one another as buyer and seller. The separation of labor from its product, of subjective labor-power from the objective conditions of labor, was therefore the actually given foundation, and the starting-point of capitalist production.

595:2 Wir sahen im vierten Kapitel: Um Geld in Kapital zu verwandeln, genügte nicht das Vorhandensein von Warenproduktion und Warenzirkulation. Es mußten erst, hier Besitzer von Wert oder Geld, dort Besitzer der wertschaffenden Substanz; hier Besitzer von Produktions- und Lebensmitteln, dort Besitzer von nichts als Arbeitskraft, einander als Käufer und Verkäufer gegenüberreten. Scheidung zwischen dem Arbeitsprodukt und der Arbeit selbst, zwischen den objektiven Arbeitsbedingungen und der subjektiven Arbeitskraft, war also die tatsächlich gegebene Grundlage, der Ausgangspunkt des kapitalistischen Produktionsprozesses.

3.a. [Reproduction Perpetuates the Worker's Dependence on Capital]

570:2/o But that which at first was but a starting-point, becomes, by the mere continuity of the process, by simple reproduction, the result, constantly renewed and perpetuated, of capitalist production itself.

595:3/o Was aber anfangs nur Ausgangspunkt war, wird vermittelt der bloßen Kontinuität des Prozesses, der einfachen Reproduktion, stets aufs neue produziert und verewigt als eignes Resultat der kapitalistischen Produktion.

The remainder of chapter Twenty-Three shows how this separation is reproduced by ongoing capitalist production.

3. [Reproduction of Separation of Producers from Means of Production]

↓ The production process enriches the capitalist but reproduces the worker in his/her neediness.

On the one hand, the process of production incessantly converts material wealth into capital, into means of creating more wealth and means of enjoyment for the capitalist. On the other hand, the laborer, on quitting the process, is what he was on entering it, a source of wealth, but devoid of all means of making that wealth his own.

Einerseits verwandelt der Produktionsprozeß fortwährend den stofflichen Reichtum in Kapital, in Verwertungs- und Genußmittel für den Kapitalisten. Andererseits kommt der Arbeiter beständig aus dem Prozeß heraus, wie er in ihn eintrat—persönliche Quelle des Reichtums, aber entblößt von allen Mitteln, diesen Reichtum für sich zu verwirklichen.

↓ In one of the few passages in *Capital* where Marx talks about alienation, the worker's dilemma is framed as the dialectic of alienation: The worker's alienation as a state (separation from the means of production) leads to his alienation as a process (he produces for others), which reinforces his state of alienation again, so that the process as a whole is one in which the laborer himself produces that which oppresses him.

Since, before entering on the process, his own labor has already been alienated from himself by the sale of his labor-power, has been appropriated by the capitalist and incorporated with capital, it must, during the process, be realised in a product that does not belong to him. Since the process of production is also the process by which the capitalist consumes labor-power, the product of the laborer is incessantly converted, not only into commodities, but into capital, into value that sucks up the value-creating power, into means of subsistence that buy the person of the laborer, into means of production that command the producers.⁶ The laborer therefore constantly produces material, objective wealth, but in the form of capital, of an alien power that dominates and exploits him: and the capitalist as constantly produces labor-power, but in the form of a subjective source of wealth, separated from the objects in and by which it can alone be realised; in short he produces the laborer, but as a wage-laborer.⁷ This incessant reproduction, this perpetuation of the laborer, is the sine qua non of capitalist production.

Da vor seinem Eintritt in den Prozeß seine eigne Arbeit ihm selbst entfremdet, dem Kapitalisten angeeignet und dem Kapital einverleibt ist, vergegenständlicht sie sich während des Prozesses beständig in fremdem Produkt. Da der Produktionsprozeß zugleich der Konsumtionsprozeß der Arbeitskraft durch den Kapitalisten, verwandelt sich das Produkt des Arbeiters nicht nur fortwährend in Ware, sondern in Kapital, Wert, der die wertschöpfende Kraft aussaugt, Lebensmittel, die Personen kaufen, Produktionsmittel, die den Produzenten anwenden.⁵ Der Arbeiter selbst produziert daher beständig den objektiven Reichtum als Kapital, ihm fremde, ihn beherrschende und ausbeutende Macht, und der Kapitalist produziert ebenso beständig die Arbeitskraft als subjektive, von ihren eignen Vergegenständlichungs- und Verwirklichungsmitteln getrennte, abstrakte, in der bloßen Leiblichkeit des Arbeiters existierende Reichtumsquelle, kurz den Arbeiter als Lohnarbeiter.⁶ Diese beständige Reproduktion oder Verewigung des Arbeiters ist das sine qua non der kapitalistischen Produktion.

⁵ "This is a remarkably peculiar property of productive labor. Whatever is productively consumed is capital and it becomes capital by consumption." (James Mill, l.c., p. 242.) James Mill, however, never got on the track of this "remark-

⁵ „Da ist eine besonders merkwürdige Eigenschaft der produktiven Konsumtion. Was produktiv konsumiert wird, ist Kapital, und es wird Kapital durch die Konsumtion.“ (James Mill, l.c. p. 242.) J. Mill ist jedoch dieser „besonders

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ably peculiar property.”

⁶ “It is true indeed, that the first introducing a manufacture employs many poor, but they cease not to be so, and the continuance of it makes many.” (“Reasons for a Limited Exportation of Wool.” London, 1677, p. 19.) “The farmer now absurdly asserts, that he keeps the poor. They are indeed kept in misery.” (“Reasons for the Late Increase of the Poor Rates: or a Comparative View of the Prices of labor and Provisions.” London, 1777, p. 31.)

merkwürdigen Eigenschaft“ nicht auf die Spur gekommen.

⁶ „Es ist tatsächlich wahr, daß die erste Einführung einer Manufaktur viele Arme beschäftigt, aber sie bleiben arm, und die Fortdauer der Manufaktur erzeugt ihrer noch viele.“ („Reasons for a limited Exportation of Wool“, Lond. 1677, p. 19.) „Der Pächter versichert nun entgegen aller Vernunft, daß er die Armen erhalte. In Wirklichkeit werden sie im Elend erhalten.“ („Reasons for the late increase of the Poor Rates: or a comparative view of the prices of labor and provisions“, Lond. 1777, p. 31.)

↑ Production leads here to disempowerment instead of more wealth and power. But by his emphasis that the worker himself is the one who produces capital, Marx of course also implies that the workers can cease to produce capital. This summary paragraph can be considered the climax of the chapter. The rest of the chapter contains the elaboration, in much more detail, of the connections spelled out here.

3.b. [The Worker’s Consumption Benefits Capital and not the Worker]

First Marx takes a closer look at the consumption of the workers. He begins with the basic distinction between productive and individual consumption:

571:1 The laborer consumes in a two-told way. While producing he consumes by his labor the means of production, and converts them into products with a higher value than that of the capital advanced This is his productive consumption. It is at the same time consumption of his labor-power by the capitalist who bought it. On the other hand, the laborer turns the money paid to him for his labor-power, into means of subsistence: this is his individual consumption.

596:1/o Die Konsumtion des Arbeiters ist doppelter Art. In der Produktion selbst konsumiert er durch seine Arbeit Produktionsmittel und verwandelt sie in Produkte von höherem Wert als dem des vorgeschossenen Kapitals. Dies ist seine produktive Konsumtion. Sie ist gleichzeitig Konsumtion seiner Arbeitskraft durch den Kapitalisten, der sie gekauft hat. Andererseits verwendet der Arbeiter das für den Kauf der Arbeitskraft gezahlte Geld in Lebensmittel: dies ist seine individuelle Konsumtion.

Is there a typo in the last sentence? “*Verwendet*” does not go together with “*in*”: should it be

“*Andererseits verwandelt*” instead of “*Andererseits verwendet*?” The French says: “l’argent est

dépensé,” which does not conclusively decide between *verwendet* and *verwandelt*.

From an individualistic point of view (which is appropriate if one talks about consumption) these two kinds of consumption are quite different:

The laborer’s productive consumption, and his individual consumption, are therefore totally distinct. In the former, he acts as the motive power of capital, and belongs to the capitalist. In the latter, he belongs to himself, and performs his necessary vital func-

Die produktive und die individuelle Konsumtion des Arbeiters sind also total verschieden. In der ersten handelt er als bewegende Kraft des Kapitals und gehört dem Kapitalisten; in der zweiten gehört er sich selbst und verrichtet Lebensfunktionen au-

3. [Reproduction of Separation of Producers from Means of Production]

tions outside the process of production. The result of the one is, that the capitalist lives; of the other, that the laborer lives.

ßerhalb des Produktionsprozesses. Das Resultat der einen ist das Leben des Kapitalisten, das der andern ist das Leben des Arbeiters selbst.

↓ Despite this difference between individual and productive consumption, there are instances in capitalism where the worker's individual consumption looks empirically just like productive consumption:

571:2 When treating of the working-day, we saw that the laborer is often compelled to make his individual consumption a mere incident of production. In such a case, he supplies himself with necessities in order to maintain his labor-power, just as coal and water are supplied to the steam-engine and oil to the wheel. His means of consumption, in that case, are the mere means of consumption required by a means of production; his individual consumption is directly productive consumption. This, however, appears as an abuse which is inessential for capitalist production.⁷

597:1 Bei Betrachtung des „Arbeitstags“ usw. zeigte sich gelegentlich, daß der Arbeiter oft gezwungen ist, seine individuelle Konsumtion zu einem bloßen Inzident des Produktionsprozesses zu machen. In diesem Fall setzt er sich Lebensmittel zu, um seine Arbeitskraft im Gang zu halten, wie der Dampfmaschine Kohle und Wasser, dem Rad Öl zugesetzt wird. Seine Konsumtionsmittel sind dann bloß Konsumtionsmittel eines Produktionsmittels, seine individuelle Konsumtion direkt produktive Konsumtion. Dies erscheint jedoch als ein dem kapitalistischen Produktionsprozeß unwesentlicher Mißbrauch.⁷

Marx is about to explain, in the next paragraph, that in capitalism the worker's individual consumption is indeed productive consumption for the capitalist, because it is the maintenance of the capitalist's most productive machine. However it is not necessary for capitalism that this fact manifests itself on the surface in such a direct way that the worker consumes while he or she is working. On the contrary, this has many disadvantages. Not only that the bread crumbs fall into the product, but the feeding on the job foregoes one of the features of capitalism which makes it so efficient: the workers' willing responsibility for their own consumption. Situations in which the worker has to eat while he or she is working fall into the same category as price gouging, organized crime, the illegal drug business, etc.: they are against the rules because they manifest the inner tendencies of capital too openly and directly, without the mediating steps which make capitalism such a smooth system of exploitation.

The Fowkes translation did not get this at all: "This, however, appears to be an abuse not essentially appertaining to capitalist production."

Question 1168 *Sometimes a worker has to eat while working, like a machine which needs fuel in order to keep going. Marx comments that "this, however, appears as an abuse." Why didn't he write "this, however, is an abuse"?* *Answer, 2013fa, 2012fa, 2010fa, 2008fa, 2008SP, 2007SP, 2004fa, 2003fa, 2002fa.*

Question 1169 *Why did Marx even mention it here if it is only an "inessential abuse"?* *2012fa, 2009fa, 2008fa, 2007SP, 2004fa, 2003fa.*

⁷ Rossi would not declaim so emphatically against this, had he really penetrated the secret

⁷ Rossi würde nicht so emphatisch diesen Punkt verdeklamieren, wäre er wirklich in das

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of “productive consumption.”

Geheimnis der „productive consumption“ eingedrungen.

Nevertheless, this superficial irregularity is a sign of deeper connections. If one looks at the matter socially instead of individually, the separation between private and “productive” consumption of the worker disappears:

571:3/o The matter takes quite another aspect, when we contemplate, not the single capitalist, and the single laborer, but the capitalist class and the laboring class, not an isolated process of production, but capitalist production in full swing, and on its actual social scale. By converting part of his capital into labor-power, the capitalist augments the value of his entire capital. He kills two birds with one stone. He profits, not only by what he receives from but also by what he gives to, the laborer.

597:2/o Anders sieht die Sache aus, sobald wir nicht den einzelnen Kapitalisten und den einzelnen Arbeiter betrachten, sondern die Kapitalistenklasse und die Arbeiterklasse, nicht den vereinzelt Produktionsprozeß der Ware, sondern den kapitalistischen Produktionsprozeß in seinem Fluß und in seinem gesellschaftlichen Umfang.—Wenn der Kapitalist einen Teil seines Kapitals in Arbeitskraft umsetzt, verwertet er damit sein Gesamtkapital. Er schlägt zwei Fliegen mit einer Klappe. Er profitiert nicht nur von dem, was er vom Arbeiter empfängt, sondern auch von dem, was er ihm gibt.

Question 1170 *Whenever Marx contemplates both social and individual points of view, he acts as if the social point of view was the true point of view. Is this justified?* 2013fa, 2008fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa.

Question 1171 *Explain the sentence in 717:3/o: The capitalist profits, not only by what he receives from but also by what he gives to, the laborer.* 2013fa, 2010fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa.

The capital given in exchange for labor-power is converted into necessities, by the consumption of which the muscles, nerves, bones, and brains of existing laborers are reproduced, and new laborers are begotten. Within the limits of what is strictly necessary, the individual consumption of the working-class is, therefore, the reconversion of the means of subsistence given by capital in exchange for labor-power, into fresh labor-power at the disposal of capital for exploitation. It is the production and reproduction of that means of production so indispensable to the capitalist: the laborer himself.

Das im Austausch gegen Arbeitskraft veräußerte Kapital wird in Lebensmittel verwandelt, deren Konsumtion dazu dient, Muskel, Nerven, Knochen, Hirn vorhandener Arbeiter zu reproduzieren und neue Arbeiter zu zeugen. Innerhalb der Grenzen des absolut Notwendigen ist daher die individuelle Konsumtion der Arbeiterklasse Rückverwandlung der vom Kapital gegen Arbeitskraft veräußerten Lebensmittel in vom Kapital neu exploitierbare Arbeitskraft. Sie ist Produktion und Reproduktion des dem Kapitalisten unentbehrlichsten Produktionsmittels, des Arbeiters selbst.

This is true whether or not the worker consumes during the production process:

The individual consumption of the laborer, whether it proceed within the workshop or outside it, whether it be part of the process of production or not, forms therefore

Die individuelle Konsumtion des Arbeiters bleibt also ein Moment der Produktion und Reproduktion des Kapitals, ob sie innerhalb oder außerhalb der Werkstatt, Fabrik usw.,

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a factor of the production and reproduction of capital; just as cleaning machinery does, whether it be done while the machinery is working or while it is standing.

innerhalb oder außerhalb des Arbeitsprozesses vorgeht, ganz wie die Reinigung der Maschine, ob sie während des Arbeitsprozesses oder bestimmter Pausen desselben geschieht.

↑ This was an analogy which no longer clarifies, because customs have changed: it was conventional that workers cleaned their machines on their own time.

↓ The workers' satisfaction from consumption and therefore their motivation to consume and procreate does not change the deeper social connections:

The fact that the laborer consumes his means of subsistence for his own sake, and not for the sake of the capitalist, has no bearing on the matter. The consumption of food by a beast of burden is none the less a necessary factor in the process of production, because the beast enjoys what it eats. The maintenance and reproduction of the working-class is, and must ever be, a necessary condition for the reproduction of capital.

Es tut nichts zur Sache, daß der Arbeiter seine individuelle Konsumtion sich selbst und nicht dem Kapitalisten zulieb vollzieht. So bleibt der Konsum des Lastviehs nicht minder ein notwendiges Moment des Produktionsprozesses, weil das Vieh selbst genießt, was es frißt. Die beständige Erhaltung und Reproduktion der Arbeiterklasse bleibt beständige Bedingung für die Reproduktion des Kapitals.

The workers' individual motivation is even advantageous for the capitalist, because the capitalist does not have to feed and house the worker but paying him a wage is sufficient. The worker is so good at making the best use of the pay that no special incentives are needed to induce the worker to take care of himself. On the contrary, often the capitalists make it difficult for the workers to meet their needs by cutting wages to the bare minimum.

But the capitalist may safely leave the satisfaction of this condition to the laborer's instincts of self-preservation and of propagation. All the capitalist cares for, is to reduce the laborer's individual consumption as far as possible to what is strictly necessary, and he is far away from imitating those brutal South Americans, who force their laborers to take the more substantial, rather than the less substantial, kind of food.⁸

Der Kapitalist kann ihre Erfüllung getrost dem Selbsterhaltungs- und Fortpflanzungstrieb der Arbeiter überlassen. Er sorgt nur dafür, ihre individuelle Konsumtion möglichst auf das Notwendige einzuschränken, und ist himmelweit entfernt von jener südamerikanischen Rohheit, die den Arbeiter zwingt, substantiellere statt weniger substantieller Nahrungsmittel einzunehmen.⁸

⁸ "The laborers in the mines of S. America, whose daily task (the heaviest perhaps in the world) consists in bringing to the surface on their shoulders a load of metal weighing from 180 to 200 pounds, from a depth of 450 feet, live on bread and beans only; they themselves would prefer the bread alone for food, but their masters, who have found out that the men cannot work so hard on bread, treat them like horses, and compel them to eat beans; beans, however, are relatively much richer in bone-earth (phosphate of lime) than is bread." (Liebig, l.c., vol. 1., p. 194, note.)

⁸ „Die Arbeiter in den Bergwerken Südamerikas, deren tägliches Geschäft (das schwerste vielleicht in der Welt) darin besteht, eine Last Erz, im Gewicht von 100 bis 200 Pfund, aus einer Tiefe von 450 Fuß auf ihren Schultern zutage zu fördern, leben nur noch von Brot und Bohnen; sie würden das Brot allein zur Nahrung vorziehen, allein ihre Herrn, welche gefunden haben, daß sie mit Brot nicht so stark arbeiten können, behandeln sie wie Pferde und zwingen sie, die Bohnen zu essen; die Bohnen sind aber verhältnismäßig an Knochenerde weit reicher als das Brot. (Liebig, l.c., 1. Theil, p. 194, Note.)

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Question 1172 *In chapter Twenty-Three, Marx argues that the workers' individual consumption benefits the capitalist because it is the reproduction of the capitalist's most indispensable means of production. Does the workers' consumption also benefit the capitalist because this creates a market for the goods the capitalists have to sell?* 2013fa, 2010fa, 2008fa, 2007SP, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP.

The interest of the capitalists to keep wages low is reflected in the language they use. Consumption which exceeds the minimum is called “unproductive consumption.”

572:1/o Hence both the capitalist and his ideologist, the political economist, consider that part alone of the laborer's individual consumption to be productive, which is requisite for the perpetuation of the class, and which therefore must take place in order that the capitalist may have labor-power to consume; what the laborer consumes for his own pleasure beyond that part, is unproductive consumption.⁹ If the accumulation of capital were to cause a rise of wages and an increase in the laborer's consumption, unaccompanied by increase in the consumption of labor-power by capital, the additional capital would be consumed unproductively.¹⁰

⁹ James Mill, l.c., p. 238.

¹⁰ “If the price of labor should rise so high that, notwithstanding the increase of capital, no more could be employed, I should say that such increase of capital would be still unproductively consumed.” (Ricardo, l.c., p. 163.)

Marx picks up the question whether the consumption of the worker is unproductive and turns it around: it is unproductive for the worker himself!

In reality, the individual consumption of the laborer is unproductive for himself, for it reproduces nothing but the needy individual; it is productive to the capitalist and to the State, since it is the production of the power that creates the wealth of others.¹¹

Interesting that Marx includes the state here too (but he has this from the Malthus quote).

¹¹ “The only productive consumption, properly so called, is the consumption or destruction of wealth” (he alludes to the means of production) “by capitalists with a view to reproduction ... The workman ... is a productive consumer to the person who employs him, and to the State, but not, strictly speaking, to himself.” (Malthus' “Definitions, etc.”, p. 30.)

598:1 Daher betrachtet auch der Kapitalist und sein Ideolog, der politische Ökonom, nur den Teil der individuellen Konsumtion des Arbeiters als produktiv, der zur Verewigung der Arbeiterklasse erheischt ist, also in der Tat verzehrt werden muß, damit das Kapital die Arbeitskraft verzehre; was der Arbeiter außerdem zu seinem Vergnügen verzehren mag, ist unproduktive Konsumtion.⁹ Würde die Akkumulation des Kapitals eine Erhöhung des Arbeitslohns und daher Vermehrung der Konsumtionsmittel des Arbeiters verursachen ohne Konsum von mehr Arbeitskraft durch das Kapital, so wäre das zuschüssige Kapital unproduktiv konsumiert.¹⁰

⁹ James Mill, l.c. p. 238 sqq.

¹⁰ „Stiege der Preis der Arbeit so hoch, daß trotz des Zuwachses von Kapital nicht mehr Arbeit angewandt werden könnte, so würde ich sagen, daß solcher Zuwachs von Kapital unproduktiv konsumiert wird.“ (Ricardo, l.c. p. 163.)

In der Tat: die individuelle Konsumtion des Arbeiters ist für ihn selbst unproduktiv, denn sie reproduziert nur das bedürftige Individuum; sie ist produktiv für den Kapitalisten und den Staat, denn sie ist Produktion der den fremden Reichtum produzierenden Kraft.¹¹

¹¹ „Die einzig produktive Konsumtion im eigentlichen Sinn ist die Konsumtion oder Zerstörung von Reichtum“ (er meint den Verbrauch der Produktionsmittel) „durch Kapitalisten zum Zwecke der Reproduktion ... Der Arbeiter ... ist ein produktiver Konsument für die Person, die ihn anwendet, und für den Staat, aber, genau gesprochen, nicht für sich selbst.“ (Malthus, „Definitions etc.“, p. 30.)

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Question 1174 *Regarding the question to what extent consumption is productive, Marx says that the individual consumption of the laborer is unproductive for the laborer, but productive for the capitalist and the state. Comment on this.* [2013fa](#), [2012fa](#), [2010fa](#), [2008SP](#), [2007SP](#), [2005fa](#), [2003fa](#), [2002fa](#), [2001fa](#), [2000fa](#), [1999SP](#).

3.c. [Individual Consumption Keeps the Worker Hostage of Capital]

First a two-sentence summary of the argument just made:

573:1 From a social point of view, therefore, the working-class, even when not directly engaged in the labor-process, is just as much an appendage of capital as the ordinary instruments of labor. Even its individual consumption is, within certain limits, a mere factor in the process of reproduction of capital.

598:2 Von gesellschaftlichem Standpunkt ist also die Arbeiterklasse, auch außerhalb des unmittelbaren Arbeitsprozesses, ebenso sehr Zubehör des Kapitals als das tote Arbeitsinstrument. Selbst ihre individuelle Konsumtion ist innerhalb gewisser Grenzen nur ein Moment des Reproduktionsprozesses des Kapitals.

Next thought: the fact that the reproduction of labor-power takes the form of the worker's individual consumption is beneficial for capital: it motivates the workers to sell themselves to capital.

That process, however, takes good care to prevent these self-conscious instruments from leaving it in the lurch, for it removes their product, as fast as it is made, from their pole to the opposite pole of capital. Individual consumption provides, on the one hand, the means for their maintenance and reproduction; on the other hand, it secures by the annihilation of the necessities of life, the continued re-appearance of the workman in the labor-market. The Roman slave was held by fetters; the wage-laborer is bound to his owner by invisible threads. The appearance of independence is kept up by means of a constant change of employers, and by the fictio juris of a contract.

Der Prozeß aber sorgt dafür, daß diese selbstbewußten Produktionsinstrumente nicht weglaufen, indem er ihr Produkt beständig von ihrem Pol zum Gegenpol des Kapitals entfernt. Die individuelle Konsumtion sorgt einerseits für ihre eigne Erhaltung und Reproduktion, andererseits durch Vernichtung der Lebensmittel für ihr beständiges Wiedererscheinen auf dem Arbeitsmarkt. Der römische Sklave war durch Ketten, der Lohnarbeiter ist durch unsichtbare Fäden an seinen Eigentümer gebunden. Der Schein seiner Unabhängigkeit wird durch den beständigen Wechsel der individuellen Lohnherrn und die fictio juris des Kontrakts aufrechterhalten.

As a proof that this is an actual concern for the capitalist, Marx cites laws forbidding emigration:

573:2 In former times, capital resorted to legislation, whenever necessary, to enforce its proprietary rights over the free laborer. For instance, down to 1815, the emigration of mechanics employed in machine making was, in England, forbidden, under grievous pains and penalties.

599:1 Früher machte das Kapital, wo es ihm nötig schien, sein Eigentumsrecht auf den freien Arbeiter durch Zwangsgesetz geltend. So war z.B. die Emigration der Maschinenarbeiter in England bis 1815 bei schwerer Strafe verboten.

In this case, emigration was not forbidden because of the loss of the workers themselves. There was a surplus of warm bodies. But the capitalists feared the loss of the skills which

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these particular workers had acquired. Before continuing to discuss these laws, Marx therefore says something about this, it is a new aspect of reproduction:

3.d. [Capital also Benefits from the Skills of the Workers and Considers them as its Property]

574:1 The reproduction of the working-class carries with it the accumulation of skill, that is handed down from one generation to another.¹²

¹² “The only thing, of which one can say, that it is stored up and prepared beforehand, is the skill of the laborer. . . The accumulation and storage of skilled labor, that most important operation, is, as regards the great mass of laborers, accomplished without any capital whatever.” (Th. Hodgskin: “Labor Defended, etc.,” p. 13.)

599:2/o Die Reproduktion der Arbeiterklasse schließt zugleich die Überlieferung und Häufung des Geschicks von einer Generation zur andren ein.¹²

¹² „Das einzige Ding, wovon man sagen kann, daß es aufgespeichert und vorher präpariert ist, ist das Geschick des Arbeiters . . . Die Akkumulation und Aufspeicherung geschickter Arbeit, diese wichtigste Operation wird, was die große Masse der Arbeiter betrifft, ohne irgendwelches Kapital vollbracht.“ (Hodgskin, „Labor Defended etc.“, p. 12, 13.)

The increasing skills of the work force are an important but often overlooked aspect of reproduction. Again it is not the workers but the capitalists who benefit from this.

To what extent the capitalist reckons the existence of such a skilled class among the factors of production that belong to him by right, and to what extent he actually regards it as the reality of his variable capital, is seen so soon as a crisis threatens him with its loss.

Wie sehr der Kapitalist das Dasein einer solchen geschickten Arbeiterklasse unter die ihm zugehörigen Produktionsbedingungen zählt, sie in der Tat als die reale Existenz seines variablen Kapitals betrachtet, zeigt sich, sobald eine Krise deren Verlust androht.

Now Marx brings a lengthy anecdote from the year 1863:

In consequence of the civil war in the United States and of the accompanying cotton famine, the majority of the cotton operatives in Lancashire were, as is well known, thrown out of work. Both from the working-class itself, and from other ranks of society, there arose a cry for State aid, or for voluntary national subscriptions, in order to enable the “superfluous” hands to emigrate to the colonies or to the United States. Thereupon, *The Times* published on the 24th March, 1863, a letter from Edmund Potter, a former president of the Manchester Chamber of Commerce. This letter was rightly called in the House of Commons, the manufacturers’ manifesto.¹³ We cull here a few characteristic passages, in which the proprietary rights of capital over labor-power are unblushingly asserted.

Infolge des Amerikanischen Bürgerkriegs und der ihn begleitenden Baumwollnot wurde bekanntlich die Mehrzahl der Baumwollarbeiter in Lancashire usw. aufs Pflaster geworfen. Aus dem Schoß der Arbeiterklasse selbst, wie andrer Gesellschaftsschichten, erhob sich der Ruf nach Staatsunterstützung oder freiwilliger Nationalkollekte, um die Emigration der „Überflüssigen“ in englische Kolonien oder die Vereinigten Staaten zu ermöglichen. Damals veröffentlichte die „Times“ (24. März 1863) einen Brief von Edmund Potter, früher Präsident der Manchester Handelskammer. Sein Brief ward mit Recht im Unterhaus als „das Manifest der Fabrikanten“ bezeichnet.¹³ Wir geben hier einige charakteristische Stellen, worin der Eigentumstitel des Kapitals auf die Arbeitskraft unverblümt ausgesprochen wird.

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¹³ “That letter might be looked upon as the manifesto of the manufacturers.” (Ferrand: “Motion on the Cotton Famine.” H.o.C., 27th April, 1863.)

“He” (the man out of work) “may be told the supply of cotton-workers is too large ... and ... must ... in fact be reduced by a third, perhaps, and that then there will be a healthy demand for the remaining two-thirds ... Public opinion ... urges emigration ... The master cannot willingly see his labor supply being removed; he may think, and perhaps justly, that it is both wrong and unsound. ... But if the public funds are to be devoted to assist emigration, he has a right to be heard, and perhaps to protest.”

574:3–575:0 Mr. Potter then shows how useful the cotton trade is, how the “trade has undoubtedly drawn the surplus-population from Ireland and from the agricultural districts,” how immense is its extent, how in the year 1860 it yielded 5/13 ths of the total English exports, how, after a few years, it will again expand by the extension of the market, particularly of the Indian market, and by calling forth a plentiful supply of cotton at 6d. per lb. He then continues:

“Some time ..., one, two, or three years, it may be, will produce the quantity. ... The question I would put then is this—Is the trade worth retaining? Is it worth while to keep the machinery (he means the living labor machines) in order, and is it not the greatest folly to think of parting with that? I think it is. I allow that the workers are not a property, not the property of Lancashire and the masters; but they are the strength of both; they are the mental and trained power which cannot be replaced for a generation; the mere machinery which they work might much of it be beneficially replaced, nay improved, in a twelvemonth¹⁴ Encourage or allow (!) the working-power to emigrate, and what of the capitalist? ...

¹³ „Dieser Brief kann als das Manifest der Fabrikanten angesehen werden.“ (Ferrand, Motion über den cotton famine, Sitzung des H. o. C. vom 27. April 1863.)

„Den Baumwollarbeitern mag gesagt werden, daß ihre Zufuhr zu groß ist ... sie müsse vielleicht um ein Drittel reduziert werden, und dann würde eine gesunde Nachfrage für die übrigen zwei Dritteile eintreten ... Die öffentliche Meinung dringt auf Emigration ... Der Meister“ (d.h. der Baumwollfabrikant) „kann nicht willig seine Arbeitszufuhr entfernt sehn; er mag denken, daß das ebenso ungerecht als unrichtig ist ... Wenn die Emigration aus öffentlichen Fonds unterstützt wird, hat er ein Recht, Gehör zu verlangen und vielleicht zu protestieren.“

600:2–601:2 Selbiger Potter setzt dann weiter auseinander, wie nützlich die Baumwollindustrie, wie „sie unzweifelhaft die Bevölkerung aus Irland und den englischen Agrikulturdistrikten wegdrainiert hat“, wie ungeheuer ihr Umfang, wie sie im Jahr 1860 5/13 des ganzen englischen Exporthandels lieferte, wie sie nach wenigen Jahren sich wieder ausdehnen werde durch Erweiterung des Markts, besonders Indiens, und durch Erzwingung hinreichender „Baumwollzufuhr, zu 6 d. das Pfund“. Er fährt dann fort:

„Zeit—ein, zwei, drei Jahre vielleicht—wird die nötige Quantität produzieren ... Ich möchte dann die Frage stellen, ist diese Industrie wert, sie festzuhalten, ist es der Mühe wert, die Maschinerie“ (nämlich die lebendigen Arbeitsmaschinen) „in Ordnung zu halten, und ist es nicht die größte Narrheit, daran zu denken, sie aufzugeben! Ich glaube das. Ich will zugeben, daß die Arbeiter nicht Eigentum sind (I allow that the workers are not a property), nicht das Eigentum Lancashires und der Meister; aber sie sind die Stärke beider; sie sind die geistige und geschulte Kraft, die in einer Generation nicht ersetzt werden kann; die andere Maschinerie dagegen, woran sie arbeiten (the mere machinery which they work), könnte zum großen Teil mit Vorteil ersetzt und verbessert werden in zwölf Monaten.¹⁴ Ermuntert oder erlaubt (!) die Emigration der Arbeitskraft, und was wird aus dem Kapitalisten? (Encourage or allow the working power

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This cry from the heart reminds one of Lord Chamberlain Kalb.

¹⁴ It will not be forgotten that this same capital sings quite another song, under ordinary circumstances, when there is a question of reducing wages. Then the masters exclaim with one voice: "The factory operatives should keep in wholesome remembrance the fact that theirs is really a low species of skilled labor, and that there is none which is more easily acquired, or of its quality more amply remunerated, or which, by a short training of the least expert, can be more quickly, as well as abundantly, acquired ... The master's machinery" (which we now learn can be replaced with advantage in 12 months,) "really plays a far more important part in the business of production than the labor and skill of the operative" (who cannot now be replaced under 30 years), "which six months' education can reach, and a common laborer can learn." (See ante, p. 423.)

to emigrate, and what of the capitalist?)"

Dieser Herzensstoß erinnert an Hofmarschall Kalb.

¹⁴ Man erinnert sich, daß dasselbe Kapital aus einem andren Loch pfeift unter gewöhnlichen Umständen, wenn es gilt, den Arbeitslohn herabzusetzen. Dann erklären „die Meister“ aus einem Munde (sieh Vierter Abschnitt, Note 188, S. 389 [425:3–426:1]: „Fabrikarbeiter sollten in heilsamer Erinnerung halten, daß ihre Arbeit in der Tat eine sehr niedrige Sorte geschickter Arbeit ist, daß keine leichter aneignbar und in Anbetracht ihrer Qualität besser belohnt ist, daß keine durch kurze Unterweisung des mindest Erfahrenen in so kurzer Zeit und in solchem Überfluß zugeführt werden kann. Des Meisters Maschinerie“ (die, wie wir jetzt hören, in 12 Monaten mit Vorteil und verbessert ersetzt werden kann) „spielt in der Tat eine viel wichtigere Rolle in dem Geschäft der Produktion als die Arbeit und das Geschick des Arbeiters“ (die jetzt in 30 Jahren nicht ersetzbar sind), „die eine Erziehung von 6 Monaten lehren und jeder Bauernknecht lernen kann.“

After this footnote, the Potter quote in the main text continues:

Take away the cream of the workers, and fixed capital will depreciate in a great degree, and the floating will not subject itself to a struggle with the short supply of inferior labor ... We are told the workers wish it" (emigration). "Very natural it is that they should do so ... Reduce, compress the cotton trade by taking away its working power and reducing their wages expenditure, say one-fifth, or five millions, and what then would happen to the class above, the small shopkeepers; and what of the rents, the cottage rents. ... Trace out the effects upwards to the small farmer, the better householder, and ... the landowner, and say if there could be any suggestion more suicidal to all classes of the country than by enfeebling a nation by exporting the best of its manufacturing population, and destroying the value of some of its most productive capital and enrichment ... I advise a loan (of five or six millions sterling), ... extending it may be over two or three years, administered by special commissioners added to the Boards of Guardians in the cotton districts, under special legislative regulations, enforcing some occupation or labor, as a means of keeping up at least the moral standard of the recipients of the loan ... can any-

... Nehmt den Rahm der Arbeiter weg, und das fixe Kapital wird in hohem Grade entwertet und das zirkulierende Kapital wird sich nicht dem Kampf mit schmaler Zufuhr einer niedrigeren Sorte von Arbeit aussetzen ... Man sagt uns, die Arbeiter selbst wünschen die Emigration. Es ist sehr natürlich, daß sie das tun ... Reduziert, komprimiert das Baumwollgeschäft durch Wegnahme seiner Arbeitskräfte (by taking away its working power), durch Verminderung ihrer Lohnverausgabung sage um 1/3 oder 5 Millionen, und was wird dann aus der nächsten Klasse über ihnen, den Kleinkrämern? Was aus den Grundrenten, was aus der Miete der cottages? ... was aus dem kleinen Pächter, dem besseren Hausbesitzer und dem Grundeigentümer? Und sagt nun, ob irgendein Plan für alle Klassen des Landes selbstmörderischer sein kann als dieser, die Nation zu schwächen durch den Export ihrer besten Fabrikarbeiter und die Entwertung eines Teils ihres produktivsten Kapitals und Reichtums?" „Ich rate zu einer Anleihe von 5 bis 6 Millionen, über 2 oder 3 Jahre verteilt, administriert durch Spezialkommissare, beigeordnet den Armenverwaltungen in den Baumwolldistrikten, unter speziellen gesetz-

3. [Reproduction of Separation of Producers from Means of Production]

thing be worse for landowners or masters than parting with the best of the workers, and demoralising and disappointing the rest by an extended depletive emigration, a depletion of capital and value in an entire province?”

lichen Regulationen, mit gewisser Zwangsarbeit, um die moralische Valuta der Almosenempfänger aufrechtzuerhalten ... Kann es irgend etwas Schlimmeres geben für Grundeigentümer oder Meister (can anything be worse for landowners or masters), als ihre besten Arbeiter aufzugeben und die übrigbleibenden zu demoralisieren und zu verstimmen durch eine ausgedehnte entleerende Emigration und Entleerung von Wert und Kapital in einer ganzen Provinz?“

575:1–576:1 Potter, the chosen mouthpiece of the manufacturers, distinguishes two sorts of “machinery,” each of which belongs to the capitalist, and of which one stands in his factory, the other at night-time and on Sundays is housed outside the factory, in cottages. The one is inanimate, the other living. The inanimate machinery not only wears out and depreciates from day to day, but a great part of it becomes so quickly superannuated, by constant technical progress, that it can be replaced with advantage by new machinery after a few months. The living machinery, on the contrary gets better the longer it lasts, and in proportion as the skill, handed from one generation to another, accumulates. *The Times* answered the cotton lord as follows:

601:3–602:0 Potter, das auserwählte Organ der Baumwollfabrikanten, unterscheidet doppelte „Maschinerie“, deren jede dem Kapitalisten gehört und wovon die eine in seiner Fabrik steht, die andre des Nachts und Sonntags auswärtig in cottages haust. Die eine ist tot, die andre lebendig. Die tote Maschinerie verschlechtert und entwertet sich nicht nur jeden Tag, sondern von ihrer existierenden Masse veraltet ein großer Teil durch den steten technischen Fortschritt beständig so sehr, daß sie vorteilhaft und in wenigen Monaten durch neuere Maschinerie ersetzbar. Die lebendige Maschinerie verbessert sich umgekehrt, je länger sie währt, je mehr sie das Geschick von Generationen in sich aufhäuft. Die „Times“ antwortete dem Fabrikmagnaten u.a.:

“Mr. Edmund Potter is so impressed with the exceptional and supreme importance of the cotton masters that, in order to preserve this class and perpetuate their profession, he would keep half a million of the laboring class confined in a great moral workhouse against their will. ‘Is the trade worth retaining?’ asks Mr. Potter. ‘Certainly by all honest means it is,’ we answer. ‘Is it worth while keeping the machinery in order?’ again asks Mr. Potter. Here we hesitate. By the ‘machinery’ Mr. Potter means the human machinery, for he goes on to protest that he does not mean to use them as an absolute property. We must confess that we do not think it ‘worth while,’ or even possible, to keep the human machinery in order—that is to shut it up and keep it oiled till it is wanted. Human machinery will rust under inaction, oil and rub it as you may. Moreover, the human machinery will, as we have just seen, get the steam up of its own accord,

„Herr E. Potter ist so impressioniert von der außerordentlichen und absoluten Wichtigkeit der Baumwollmeister, daß er, um diese Klasse zu erhalten und ihr Metier zu verewigen, eine halbe Million der Arbeiterklasse wider ihren Willen in ein großes moralisches Workhouse einsperren will. Ist diese Industrie wert, sie festzuhalten? fragt Herr Potter. Sicher, durch alle ehrbaren Mittel, antworten wir. Ist es der Mühe wert, die Maschinerie in Ordnung zu halten? fragt wieder Herr Potter. Hier stutzen wir. Unter der Maschinerie versteht Herr Potter die menschliche Maschinerie, denn er beteuert, daß er sie nicht als absolutes Eigentum zu behandeln vorhat. Wir müssen gestehn, wir halten es nicht ‚der Mühe wert‘ oder selbst für möglich, die menschliche Maschinerie in Ordnung zu halten, d.h. sie einzusperren und einzuölen, bis man ihrer bedarf. Menschliche Maschinerie hat die Eigenschaft, während der Untätigkeit zu verrosten, ihr mögt noch so-

23. Simple Reproduction

and burst or run amuck in our great towns. It might, as Mr. Potter says, require some time to reproduce the workers, but, having machinists and capitalists at hand, we could always find thrifty, hard, industrious men wherewith to improvise more master-manufacturers than we can ever want. Mr. Potter talks of the trade reviving 'in one, two, or three years,' and he asks us not 'to encourage or allow (!) the working power to emigrate.'¹⁵ He says that it is very natural the workers should wish to emigrate; but he thinks that in spite of their desire, the nation ought to keep this half million of workers with their 700,000 dependents, shut up in the cotton districts; and as a necessary consequence, he must of course think that the nation ought to keep down their discontent by force, and sustain them by alms—and upon the chance that the cotton masters may some day want them . . . The time is come when the great public opinion of these islands must operate to save this 'working power' from those who would deal with it as they would deal with iron, and coal, and cotton."

¹⁵ *Times*, March 24 1863.

viel dran ölen oder reiben. Zudem ist menschliche Maschinerie, wie der Augenschein uns eben lehrt, imstand, von eignen Stücken den Dampf anzulassen und zu platzen oder einen Veitstanz in unsren großen Städten zu tolln. Es mag, wie Herr Potter sagt, längere Zeit zur Reproduktion der Arbeiter erheischt sein, aber mit Maschinisten und Geld zur Hand werden wir stets betriebsame, harte, industrielle Männer finden, um daraus mehr Fabrikmeister zu fabrizieren, als wir je verbrauchen können . . . Herr Potter plaudert von einer Wiederbelebung der Industrie in 1, 2, 3 Jahren und verlangt von uns, die Emigration der Arbeitskraft nicht zu ermuntern oder nicht zu erlauben! Er sagt, es sei natürlich, daß die Arbeiter zu emigrieren wünschen, aber er meint, daß die Nation diese halbe Million Arbeiter mit den 700 000, die an ihnen hängen, ihrem Verlangen zum Trotz in die Baumwolldistrikte einsperren und, eine notwendige Konsequenz, ihr Mißvergnügen durch Gewalt niederschlagen und sie selbst durch Almosen fristen muß, alles das auf die Chance hin, daß die Baumwollmeister ihrer an einem beliebigen Tag wieder bedürfen mögen . . . Die Zeit ist gekommen, wo die große öffentliche Meinung dieser Eilande etwas tun muß, um 'diese Arbeitskraft' vor denen zu retten, die sie behandeln wollen, wie sie Kohle, Eisen und Baumwolle behandeln (to save this 'working power' from those who would deal with it as they deal with iron, coal and cotton)."¹⁵

¹⁵ „Times“, 24. March 1863.

Question 1177 Which are the similarities and differences between the machinery owned by the capitalists and the workers employed by the capitalists? 2001fa, 2000fa, 1999SP.

576:2 *The Times'* article was only a jeu d'esprit. The "great public opinion" was, in fact, of Mr. Potter's opinion, that the factory operatives are part of the movable fittings of a factory. Their emigration was prevented. They were locked up in that "moral workhouse," the cotton districts, and they form, as before, "the strength" of the cotton manufacturers of Lancashire.

¹⁶ Parliament did not vote a single farthing in aid of emigration, but simply passed some Acts empowering the municipal corporations to keep

602:1 Der „Times“-Artikel war nur ein jeu d'esprit. Die „große öffentliche Meinung“ war in der Tat der Meinung des Herrn Potter, daß die Fabrikarbeiter Mobiliarzubehör der Fabriken. Ihre Emigration wurde verhindert.¹⁶ Man sperrte sie in das „moralische Workhouse“ der Baumwolldistrikte, und sie bilden nach wie vor „die Stärke (the strength) der Baumwollmeister von Lancashire“.

¹⁶ Das Parlament votierte keinen Farthing für Emigration, sondern nur Gesetze, welche die Munizipalitäten befähigten, die Arbeiter zwi-

3. [Reproduction of Separation of Producers from Means of Production]

the operatives in a half-starved state, *i.e.*, to exploit them at less than the normal wages. On the other hand, when 3 years later, the cattle disease broke out, Parliament broke wildly through its usages and voted, straight off, millions for indemnifying the millionaire landlords, whose farmers in any event came off without loss, owing to the rise in the price of meat. The bull-like bellow of the landed proprietors at the opening of Parliament, in 1866, showed that a man can worship the cow Sabala without being a Hindu, and can change himself into an ox without being a Jupiter.

schen Leben und Sterben zu halten oder sie zu exploitierten, ohne Zahlung von Normallöhnen. Als dagegen drei Jahre später die Rinderseuche ausbrach, durchbrach das Parlament wild sogar die parlamentarische Etikette und votierte im Umsehn Millionen zur Schadloshaltung der Millionäre von Landlords, deren Pächter sich ohnehin durch Steigerung der Fleischpreise schadlos hielten. Das bestiale Gebrüll der Grundeigentümer bei Eröffnung des Parlaments von 1866 bewies, daß man nicht Hindu zu sein braucht, um die Kuh Sabala anzubeten, noch Jupiter, um sich in einen Ochsen zu verwandeln.

3.e. [Result: A Society Divided into Classes]

The concluding passage of the chapter begins with a summary of the arguments so far:

576:3/o Capitalist production, therefore, just by the fact that it is happening, reproduces the separation between labor-power and the means of labor. It thereby reproduces and perpetuates the condition for exploiting the laborer. It incessantly forces him to sell his labor-power in order to live, and enables the capitalist to purchase labor-power in order that he may enrich himself.¹⁷

¹⁷ “L’ouvrier demandait de la subsistance pour vivre, le chef demandait du travail pour gagner.” (Sismondi, l.c., p. 91.)

⇓ These individual mechanisms conspire to create a new reality, namely, a society divided into classes:

It is no longer a mere accident, that capitalist and laborer confront each other in the market as buyer and seller. It is the process itself that incessantly hurls back the laborer on to the market as a vendor of his labor-power, and that incessantly converts his own product into a means by which another man can purchase him. In reality, the laborer belongs to capital before he has sold himself to capital. His economic bondage¹⁸ is both brought about and concealed by the periodic sale of himself, by his change of masters, and by the oscillations in the market-price of labor-power.¹⁹

603:1 Der kapitalistische Produktionsprozeß reproduziert also durch seinen eigenen Vorgang die Scheidung zwischen Arbeitskraft und Arbeitsbedingungen. Er reproduziert und verewigt damit die Exploitationsbedingungen des Arbeiters. Er zwingt beständig den Arbeiter zum Verkauf seiner Arbeitskraft, um zu leben, und befähigt beständig den Kapitalisten zu ihrem Kauf, um sich zu bereichern.¹⁷

¹⁷ „Der Arbeiter forderte Unterhaltsmittel, um zu leben, der Chef forderte Arbeit, um zu verdienen.“ (Sismondi, l.c. p. 91.)

Es ist nicht mehr der Zufall, welcher Kapitalist und Arbeiter als Käufer und Verkäufer einander auf dem Warenmarkt gegenüberstellt. Es ist die Zwickmühle des Prozesses selbst, die den einen stets als Verkäufer seiner Arbeitskraft auf den Warenmarkt zurückschleudert und sein eignes Produkt stets in das Kaufmittel des andren verwandelt. In der Tat gehört der Arbeiter dem Kapital, bevor er sich dem Kapitalisten verkauft. Seine ökonomische Hörigkeit¹⁸ ist zugleich vermittelt und zugleich versteckt durch die periodische Erneuerung seines Selbstverkaufs, den Wechsel seiner individuellen Lohnherrn und die Oszillation im Marktpreise der Arbeit.¹⁹

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¹⁸ A boorishly clumsy form of this bondage exists in the county of Durham. This is one of the few counties, in which circumstances do not secure to the farmer undisputed proprietary rights over the agricultural laborer. The mining industry allows the latter some choice. In this county, the farmer, contrary to the custom elsewhere, rents only such farms as have on them laborers' cottages. The rent of the cottage is a part of the wages. These cottages are known as "hinds' houses." They are let to the laborers in consideration of certain feudal services, under a contract called "bondage," which, amongst other things, binds the laborer, during the time he is employed elsewhere, to leave some one, say his daughter, etc., to supply his place. The laborer himself is called a "bondsmen." The relationship here set up also shows how individual consumption by the laborer becomes consumption on behalf of capital—or productive consumption—from quite a new point of view: "It is curious to observe that the very dung of the hind and bondsmen is the perquisite of the calculating lord . . . and the lord will allow no privy but his own to exist in the neighbourhood, and will rather give a bit of manure here and there for a garden than bate any part of his seigniorial right." ("Public Health, Report VII., 1864," p. 188.)

¹⁹ It will not be forgotten, that, with respect to the labor of children, etc., even the formality of a voluntary sale disappears.

↓ Since this division of society into classes is the result of the continuous repetition of the capitalist production process itself, Marx coins the phrase that the capitalist production process produces the capital relation.

577:1 Capitalist production, therefore, under its aspect of a continuous connected process, of a process of reproduction, produces not only commodities, not only surplus-value, but it also produces and reproduces the capitalist relation; on the one side the capitalist, on the other the wage-laborer.²⁰

↓ In a more informal setting, Marx has summarized this already in 1849 with the words: the workers produce capital.

²⁰ "Capital pre-supposes wage-labor, and wage-labor pre-supposes capital. One is a necessary condition to the existence of the other; they mutually call each other into existence. Does an operative in a cotton-factory produce nothing but cotton goods? No, he produces capital. He produces values that give fresh command over

¹⁸ Eine bäuerlich plumpe Form dieser Hörigkeit existiert in der Grafschaft Durham. Es ist dies eine der wenigen Grafschaften, worin die Verhältnisse dem Pächter nicht unbestrittenen Eigentumstitel auf die Ackerbautagelöhner sichern. Die Bergwerkindustrie erlaubt letzteren eine Wahl. Der Pächter, im Gegensatz zur Regel, übernimmt hier daher nur Pacht von Ländereien, worauf sich cottages für die Arbeiter befinden. Der Mietpreis der cottage bildet Teil des Arbeitslohns. Diese cottages heißen „hind's houses“. Sie werden den Arbeitern unter gewissen Feudalverpflichtungen vermietet unter einem Vertrag, der „bondage“ (Hörigkeit) heißt und den Arbeiter z.B. bindet für die Zeit, während deren er anderswo beschäftigt ist, seine Tochter usw. zu stellen. Der Arbeiter selbst heißt bondsmen, Höriger. Dies Verhältnis zeigt auch die individuelle Konsumtion des Arbeiters als Konsumtion für das Kapital oder produktive Konsumtion—von einer ganz neuen Seite: „Es ist merkwürdig zu beobachten, wie selbst der Kot dieses bondsmen zu den Sporteln an seinen kalkulierenden Gebieter zählt . . . Der Pächter erlaubt in der ganzen Nachbarschaft keinen Abtritt außer seinem eignen und duldet in dieser Beziehung keinen Abschlag von seinen Suzerainrechten.“ („Public Health. VII. Rep. 1864“, p. 188.)

¹⁹ Man erinnert sich, daß bei der Arbeit der Kinder usw. selbst die Formalität des Selbstverkaufs verschwindet.

604:1 Der kapitalistische Produktionsprozeß, im Zusammenhang betrachtet oder als Reproduktionsprozeß, produziert also nicht nur Ware, nicht nur Mehrwert, er produziert und reproduziert das Kapitalverhältnis selbst, auf der einen Seite den Kapitalisten, auf der andren den Lohnarbeiter.²⁰

²⁰ „Das Kapital setzt die Lohnarbeit, die Lohnarbeit setzt das Kapital voraus. Sie bedingen sich wechselseitig, sie bringen sich wechselseitig hervor. Ein Arbeiter in einer Baumwollfabrik, produziert er nur Baumwollstoffe? Nein, er produziert Kapital. Er produziert Werte, die von neuem dazu dienen, seine Arbeit zu

3. [Reproduction of Separation of Producers from Means of Production]

his labor, and that, by means of such command, create fresh values.” (Karl Marx: “Lohnarbeit und Kapital,” in the *Neue Rheinische Zeitung*: No. 266, 7th April, 1849.) The articles published under the above title in the *N. Rh. Z.* are parts of some lectures given by me on that subject, in 1847, in the German “Arbeiter-Verein” at Brussels, the publication of which was interrupted by the revolution of February.

kommandieren und vermittelst derselben neue Werte zu schaffen.“ (Karl Marx, „Lohnarbeit und Kapital“ in „N[eu] Rh[einische] Z[ei]tung“ Nr. 266, 7. April 1849.) Die unter diesem Titel in der „N.Rh.Z.“ veröffentlichten Artikel sind Bruchstücke der Vorlesungen, die ich über jenes Thema 1847 im deutschen Arbeiterverein in Brüssel hielt und deren Druck durch die Februarrevolution unterbrochen wurde.

Term Paper Topic 1182 *Essay about Chapter Twenty-Six: Secret of Original Accumulation* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa.

Term Paper Topic 1183 *Essay about Chapter Thirty-Two: Historical Tendency of Capitalist Accumulation* 2013fa, 2012fa, 2011fa, 2009fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa.

Term Paper Topic 1184 *Essay about Chapter Thirty-Three: Modern Theory of Colonization* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa.

Term Paper Topic 1185 *Essay about Marx’s Use of the Word “Abstinence” in Chapters Twenty-Four and Thirty-Three* 2012fa, 2010fa.

Term Paper Topic 1186 *Enumerate as many features of capitalism as you can find where the system hides exploitation to the people living in the system. Then try to explain why the system hides exploitation in so many different ways. There are several possible explanations, for instance*

(a) capitalism happens to have several features which hide exploitation just by accident.

(b) capitalism has systemic features (for instance the fetish-like character of the commodity, i.e., the fact that individuals do not see nor control the true character of their own social relations) which cause it to systematically hide exploitation.

(c) if capitalism would not hide exploitation so well, it could not exist. After the individuals have achieved personal freedom to the extent they did in modern times, only a system of exploitation can survive which hides exploitation.

(d) both exploiters and those exploited are interested in hiding exploitation to themselves and others; therefore the agents in a capitalist system do things deliberately which hide exploitation.

Are there other explanations? 2013fa, 2012fa, 2011fa, 2010fa.

24. Transformation of Surplus-Value into Capital

Simple reproduction, as discussed in chapter Twenty-Three, is not an option for the capitalists. The laws of capitalism do not permit a steady state. Capitalism cannot function without growth. Nevertheless Marx discussed reproduction (without growth) first, because reproduction is a systemic necessity for any viable economic system, whether capitalist or not. Any economic organization of production must be such that it maintains and reproduces its structure over time. For capitalism, an additional requirement exists, which is often in contradiction with the requirement for reproduction, namely, this reproduction must be *expanded* reproduction, i.e., “growth.”

1. The Capitalist Production Process on an Expanded Scale. The Inversion by which the Property Laws of Commodity Production become Laws of Capitalist Appropriation

“*Umschlag*” is a phase transition, the crossing of a tipping point. Ben Fowkes translates it as

“inversion” and Moore-Aveling as “transition.” The above translation “inversion by which . . . becomes”

tries to make it clearer than Fowkes that this inversion comes from the inside, not the outside.

578:1 Earlier we investigated how surplus-value arises from capital; now we have to see how capital arises from surplus-value. The application of surplus-value as capital, its reconversion into capital, is called accumulation of capital.²¹

²¹ “Accumulation of capital: the employment of a portion of revenue as capital.” (Malthus: “Definitions, etc.,” ed. Cazenove, p. 11.) “Conversion of revenue into capital.” (Malthus: “Princ. of Pol. Econ.” 2nd Ed., Lond. 1836, p. 320.)

↑ This introductory paragraph defines the word “accumulation.” At the same time, it defines the place of chapter Twenty-Four in the logical development of *Capital*. It is not enough to investigate how surplus-value emanates from capital; with this, the process is not yet completed. We also have to understand the converse, how capital arises from surplus-value. This closes the circle, capital arising from capital, and in this way defines capital as a truly autonomous force.

The following quote from *Grundrisse* shows that Marx was thinking in these categories.

605:1 Früher hatten wir zu betrachten, wie der Mehrwert aus dem Kapital, jetzt wie das Kapital aus dem Mehrwert entspringt. Anwendung von Mehrwert als Kapital oder Rückverwandlung von Mehrwert in Kapital heißt Akkumulation des Kapitals.²¹

²¹ „Akkumulation des Kapitals: die Verwendung eines Teiles der Revenue als Kapital.“ (Malthus, „Definitions etc.“, ed. Cazenove, p. 11.) „Verwandlung von Revenue in Kapital.“ (Malthus, „Princ. of Pol. Econ.“, 2nd ed., Lond. 1836, p. 320.)

1. Expanded Reproduction. Inversion of the Property Laws

459 —money has become transformed into capital actually only at the end of the first production process, which resulted in its reproduction and in the new production of surplus capital I; surplus capital I, however, is itself posited, realized as surplus capital, only when it has produced surplus capital II, i.e. as soon as those presuppositions of money, while it is in the process of passing over into capital, which still lie outside the movement of real capital have vanished, and when capital has therefore itself posited, and posited in accordance with its immanent essence, the conditions which form its point of departure in production—

This autonomy of the capital relation, that capital does not depend on anything other than capital, that it controls its own preconditions, makes the capital relation even more mystified and nature-like. It makes the capital relation an inappropriate organizing principle of the real economy, which is a subsystem of a larger system, the biosphere. In reality, the economy must therefore fit together with the reproduction of the larger system, and it is impossible that it controls its own conditions of reproduction.

363 —das Geld hat sich eigentlich erst in Kapital verwandelt am *Ende des ersten Produktionsprozesses*, der in seiner Reproduktion und Neuproduktion das Surpluskapital I resultierte; das Surpluskapital I ist aber selbst erst als Surpluskapital *gesetzt*, realisiert, sobald es Surpluskapital II produziert hat, sobald also die noch außerhalb der Bewegung des wirklichen Kapitals liegenden Voraussetzungen des in Kapital übergehenden Geldes verschwunden sind, das Kapital daher in fact die Bedingungen seiner selbst, seinem immanenten Wesen gemäß gesetzt hat, von denen es in der Produktion ausgeht—

Question 1187 *How does it follow from the general laws of capitalism that capital must accumulate (i.e. the capitalists cannot just consume the surplus-product but must convert part of it into additional capital)? (Do not explain this with the competition between the capitalists, such as: if one capitalist does not accumulate, the others will outproduce him. This only says that each capitalist must accumulate because the others do, but does not explain why they all do it. “Competition makes the immanent laws of capitalist production to be felt by each individual capitalist, as external coercive laws” [this chapter, p. 739:1]. Go back to chapter Four for an explanation why accumulation is one of the immanent laws of capitalist production.) 2013fa.*

1.a. [Expanded Reproduction]

[Expanded Reproduction from the Perspective of an Individual Capital]

The next step in the argument may seem surprising. Marx first looks at the conversion of surplus-value into capital from the point of view of an *individual* capitalist, a yarn spinnery. This does not mean that Marx tries to reduce the social process of the accumulation of capital to individual actions and motivations. This look at the individual yarn spinnery shows the practical actions necessary to convert surplus-value into capital. We will see that expanded reproduction requires very little beyond what is necessary for reproduction itself, on an individual level it is almost automatic. This leads Marx to explore, in a second step, the social conditions that must hold so that this activity by the individual capitalist is possible and in fact so easy. The birth of new capital has very little labor pains.

The implication of this is that accumulation is natural for the system. I.e., the “curse of money,” which guides individual motivation, is paralleled by an in-built desire to accumulate on the level of the economic system. A mathematical proof of the possibility of expanded

24. Transformation of Surplus-Value into Capital

reproduction is Von Neumann's balanced growth model, which shows that the system, despite its complexity, is capable of quantitative expansion. But the unspoken assumption is here that natural resources are available without bounds. Strictly speaking this of course cannot be true. Why has it *seemed* to be true for so long? My hypothesis is, it is because of cheap energy. The versatility of labor as factor of production is paralleled by the versatility of energy in expanding the frontier of natural resources.

Let us see now what expanded reproduction looks like from the point of view of an individual capitalist:

578:2 First let us consider this transaction from the standpoint of the individual capitalist. Suppose a spinner to have advanced a capital of £10,000, of which four-fifths (£8,000) are laid out in cotton, machinery, etc., and one-fifth (£2,000) in wages. Let him produce 240,000 lbs. of yarn annually, having a value of £12,000. The rate of surplus-value being 100%, the surplus-value lies in the surplus or net product of 40,000 lbs. of yarn, one-sixth of the gross product, with a value of £2,000 which will be realised by a sale.

The annual product of £12,000 splits up into $£8000c + £2000v + £2000s$.

£2,000 is £2,000. We can neither see nor smell in this sum of money a trace of surplus-value. When we know that a given value is surplus-value, we know how its owner came by it; but that does not alter the nature either of the value or of the money.

↑ The money representing surplus-value looks, feels, and smells exactly the same as the money representing the backflow of the original capital. ↓ If the capitalist wants to convert the surplus-value into capital, he will therefore do the same with the money representing surplus-value as he did with the original money.

This argument is related to 162:2/o. It extends it from the individual to the systemic level.

Question 1188 What is the difference between the argument in 252:2/o. and the argument in 725:2?

578:3 In order to convert this additional sum of £2,000 into capital, the master-spinner will, all circumstances remaining as before, advance four-fifths of it (£1,600) in the purchase of cotton, etc., and one-fifth (£400) in the purchase of additional spinners, who will find in the market the necessities of life whose value the master has advanced to them. Then the new capital of £2,000 functions in the spinning-mill, and

605:2 Betrachten wir diesen Vorgang zunächst vom Standpunkt des einzelnen Kapitalisten. Ein Spinner z.B. habe ein Kapital von 10 000 Pfd.St. vorgeschossen, wovon vier Fünftel in Baumwolle, Maschinen etc., das letzte Fünftel in Arbeitslohn. Er produziere jährlich 240 000 Pfd. Garn zum Wert von 12 000 Pfd.St. Bei einer Rate des Mehrwerts von 100% steckt der Mehrwert im Mehrprodukt oder Nettoprodukt von 40 000 Pfd. Garn, einem Sechstel des Bruttoprodukts, zum Wert von 2000 Pfd. Sterling, den der Verkauf realisieren wird.

Eine Wertsumme von 2000 Pfd.St. ist eine Wertsumme von 2000 Pfd.St. Man riecht und sieht diesem Gelde nicht an, daß es Mehrwert ist. Der Charakter eines Werts als Mehrwert zeigt, wie er zu seinem Eigener kam, ändert aber nichts an der Natur des Werts oder des Geldes.

605:3/o Um die neu hinzugekommene Summe von 2000 Pfd.St. in Kapital zu verwandeln, wird also der Spinner, alle andern Umstände gleichbleibend, vier Fünftel davon vorschießen im Ankauf von Baumwolle usw. und ein Fünftel im Ankauf neuer Spinnerarbeiter, die auf dem Markte die Lebensmittel finden werden, deren Wert er ihnen vorgeschossen hat. Dann fungiert das neue Kapital von 2000 Pfd.St. in der Spinnerei

1. Expanded Reproduction. Inversion of the Property Laws

brings in, in its turn, a surplus-value of £400.

und bringt seinerseits einen Mehrwert von 400 Pfd. ein.

Second year: old capital as in first year: $£12,000 = 8000c + 2000v + 2000s$. Surplus-value: $£2,400 = 1600c + 400v + 400s$. I.e., there is no difference between capital and surplus-value. Capital is now really value in motion, because it produces *moving* offspring. Not just a good laying golden eggs but one bringing forth living offspring, see 164:1/o. We all have enough experience with market economies to know that this is how it's being done in the practical "business as usual."

↑ For the individual capitalist, accumulation is therefore easy: he treats the surplus-value the same way as he treats the backflow of his constant and variable capital. If Marx's usual assumption holds that demand equals supply, then the additional means of production and the means of consumption for the additional workers are readily available on the market. The individual capitalist will therefore be vindicated in his practical activity, and may not even be aware that very specific social conditions are necessary for his actions. However the fulfilment of these conditions is by no means a matter of course. ↓ To develop the necessary conditions so that the individual capitalist's assumptions can be ratified by the market, Marx first shows that there is a difference between capital value and surplus-value after all: The capital value returns to its original form, money, and therefore is simply repeating its circuit, while the surplus-value does not have a circuit to repeat yet. Its original form is not money but part of the output, called the "surplus-product." This is a point Marx discusses also in volume 2, .

578:4/o The capital-value was originally advanced in the money-form. By contrast, the surplus-value exists, originally, as the value of a definite portion of the gross product.

606:1 Der Kapitalwert war ursprünglich vorgeschossen in Geldform; der Mehrwert dagegen existiert von vornherein als Wert eines bestimmten Teils des Bruttoprodukts.

↑ This is a clarification of the last sentence of 578:2, which said that there was a difference, but this difference did not matter from the individual point of view.

When this gross product is sold, converted into money, the capital-value regains its original form, but the surplus-value assumes a form of existence different from its original one.

Wird dieses verkauft, in Geld verwandelt, so gewinnt der Kapitalwert seine ursprüngliche Form wieder, aber der Mehrwert verwandelt seine ursprüngliche Daseinsweise.

↑ This remark foreshadows the condition on the composition of output. This difference pertains only to the first transaction made by the surplus-value. Afterwards, the transactions on the surface of the economy look exactly alike:

From this moment on, however, the capital-value and the surplus-value are both sums of money, and their reconversion into capital takes place in precisely the same way. The one, as well as the other, is laid out by the capitalist in the purchase of commodities that place him in a position to begin afresh the fabrication of his goods, the only difference being that this time it is on an extended scale.

Von diesem Augenblick an sind jedoch Kapitalwert und Mehrwert beides Geldsummen, und ihre Wiederverwandlung in Kapital vollzieht sich auf ganz dieselbe Weise. Die eine wie die andre legt der Kapitalist an im Ankauf der Waren, die ihn instand setzen, die Verfertigung seines Artikels von neuem zu beginnen, und zwar diesmal auf erweiterter Stufenleiter.

The surface transactions can only be this smooth if the composition of the overall social

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product is just right.

But in order to be able to buy those commodities, he must find them ready in the market.

Um aber diese Waren zu kaufen, muß er sie auf dem Markte vorfinden.

Although the individual capitalist perceives as his or her biggest problem the sale of the surplus-product, Marx already looks at the next stage and asks: after having sold his product, will the capitalist find the ingredients for his future expanded production process on the market? ↓ He uses the sale of the yarn spinnery's products only as a transition to the next step:

579:1 His own yarns circulate only because he brings his annual product to market, as all other capitalists likewise do with their commodities.

606:2 Seine eignen Garne zirkulieren nur, weil er sein Jahresprodukt auf den Markt bringt, wie das alle andern Kapitalisten mit ihren Waren ebenfalls tun.

After this transitional sentence, the next step is: Whether these things are available on the market is not decided on the market but in production. (Of course this is only true for those ingredients of production produced by other capitalists. Marx will talk about the availability of labor-power afterwards.)

But these commodities, before coming to market, were part of the general annual product, part of the total mass of objects of every kind, into which the sum of the individual capitals, *i.e.*, the total capital of society, had been converted in the course of the year, and of which each capitalist had in hand only an aliquot part.

Aber ehe sie auf den Markt kamen, hatten sie sich schon befunden im jährlichen Produktionsfonds, d.h. der Gesamtmasse der Gegenstände aller Art, worin die Gesamtsumme der Einzelkapitale oder das gesellschaftliche Gesamtkapital im Laufe des Jahres sich verwandelt und wovon jeder Einzelkapitalist nur einen aliquoten Teil in Händen hat.

↓ Now an interesting formulation: the role of the market is to move goods around, the market cannot increase or decrease the amount of use-values available:

The transactions in the market effectuate only the interchange of the individual components of this annual product, transfer them from one hand to another, but can neither augment the total annual production, nor alter the nature of the objects produced. Hence the use, that can be made of the total annual product, depends entirely upon the composition of this product, but in no way upon circulation.

Die Vorgänge auf dem Markt bewerkstelligen nur den Umsatz der einzelnen Bestandteile der Jahresproduktion, schicken sie von einer Hand in die andre, aber sie können weder die Gesamt-Jahresproduktion vergrößern noch die Natur der produzierten Gegenstände ändern. Welcher Gebrauch also von dem jährlichen Gesamtprodukt gemacht werden kann, das hängt ab von seiner eignen Zusammensetzung, keineswegs aber von der Zirkulation.

I.e., we have to go beneath the surface. In order to see why the market transactions, which the capitalist enters almost as a matter of course, can indeed be completed successfully, we must look beyond the market, at the production underneath.

[Systemic Conditions for Expanded Reproduction]

Now Marx develops (at a snail's pace) the conditions which must be satisfied by the annual product. How must the annual product be composed for accumulation to be possible?

1. Expanded Reproduction. Inversion of the Property Laws

579:2 The annual production must in the first place furnish all those objects (use-values) from which the material components of capital, used up in the course of the year, have to be replaced.

It is therefore obvious in which natural form the constant and variable capital must exist. But what about the surplus-value?

Deducting these there remains the net or surplus-product, in which the surplus-value lies. And of what does this surplus-product consist?

Now Marx starts an elimination argument, he goes through all the possibilities for this part of the value:

Only of things destined to satisfy the wants and desires of the capitalist class, things which, consequently, enter into the consumption-fund of the capitalists? Were that the case, the cup of surplus-value would be drained to the very dregs, and nothing but simple reproduction would ever take place.

Since we know that accumulation indeed takes place, not all of the surplus-product can enter capitalist consumption:

579:3/o To accumulate it is necessary to convert a portion of the surplus-product into capital. But we cannot, except by a miracle, convert into capital anything but such articles as can be employed in the labor-process (*i.e.*, means of production), and such further articles as are suitable for the sustenance of the laborer (*i.e.*, means of subsistence).

Now we know which form the surplus-product is taking (and this must have happened before the market transactions take place):

Consequently, a part of the annual surplus-labor must have been applied to the production of additional means of production and subsistence, over and above the quantity of these things required to replace the capital advanced. In one word, surplus-value is convertible into capital solely because the surplus-product, whose value it is, already comprises the material elements of new capital.^{21a}

^{21a} We here take no account of export trade, by means of which a nation can change articles of luxury either into means of production or means of subsistence, and *vice versa*.⁷ In order to examine the object of our investigation in its integrity, free from all disturbing subsidiary cir-

606:3 Zunächst muß die Jahresproduktion alle die Gegenstände (Gebrauchswerte) liefern, aus denen die im Lauf des Jahres verbrauchten sachlichen Bestandteile des Kapitals zu ersetzen sind.

Nach Abzug dieser bleibt das Netto- oder Mehrprodukt, worin der Mehrwert steckt. Und woraus besteht dies Mehrprodukt?

Vielleicht in Dingen, bestimmt zur Befriedigung der Bedürfnisse und Gelüste der Kapitalistenklasse, die also in ihren Konsumtionsfonds eingehen? Wäre das alles, so würde der Mehrwert verjubelt bis auf die Hefen, und es fände bloß einfache Reproduktion statt.

606:4/o Um zu akkumulieren, muß man einen Teil des Mehrprodukts in Kapital verwandeln. Aber, ohne Wunder zu tun, kann man nur solche Dinge in Kapital verwandeln, die im Arbeitsprozeß verwendbar sind, d.h. Produktionsmittel, und des ferneren Dinge, von denen der Arbeiter sich erhalten kann, d.h. Lebensmittel.

Folglich muß ein Teil der jährlichen Mehrarbeit verwandt worden sein zur Herstellung zusätzlicher Produktions- und Lebensmittel, im Überschuß über das Quantum, das zum Ersatz des vorgeschossenen Kapitals erforderlich war. Mit einem Wort: der Mehrwert ist nur deshalb in Kapital verwandelbar, weil das Mehrprodukt, dessen Wert er ist, bereits die sachlichen Bestandteile eines neuen Kapitals enthält.^{21a}

^{21a} Es wird hier abstrahiert vom Ausfuhrhandel, vermittelt dessen eine Nation Luxusartikel in Produktions- oder Lebensmittel umsetzen kann und umgekehrt. Um den Gegenstand der Untersuchung in seiner Reinheit, frei von störenden Nebenumständen aufzufassen, müssen wir

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cumstances, we must treat the whole world as one nation, and assume that capitalist production is everywhere established and has possessed itself of every branch of industry.

hier die gesamte Handelswelt als eine Nation ansehen und voraussetzen, daß die kapitalistische Produktion sich überall festgesetzt und sich aller Industriezweige bemächtigt hat.

↑ Now the earlier observation is relevant that the first form of the existence of the surplus-product is material things, not money. The composition of these material things matters. Prior production must have had the right proportions to ensure this. Marx makes here the assumption that it did. This is similar to 565:4/o. ↓ Not everything on the market is the output of capitalist production. In addition, also an enlarged supply of labor-power is necessary. The supply of labor-power can expand when wages are high enough. But since ordinary wages are high enough to allow for the growth of the working-class, this does not present an additional constraint:

580:1 Now in order to allow of these elements actually functioning as capital, the capitalist class requires additional labor. If the exploitation of the laborers already employed do not increase, either extensively or intensively, then additional labor-power must be found. For this the mechanism of capitalist production provides beforehand, by converting the working-class into a class dependent on wages, a class whose ordinary wages suffice, not only for its maintenance, but for its increase.

607:1 Um nun diese Bestandteile tatsächlich als Kapital fungieren zu lassen, bedarf die Kapitalistenklasse eines Zuschusses von Arbeit. Soll nicht die Ausbeutung der schon beschäftigten Arbeiter extensiv oder intensiv wachsen, so müssen zusätzliche Arbeitskräfte eingestellt werden. Dafür hat der Mechanismus der kapitalistischen Produktion ebenfalls schon gesorgt, indem er die Arbeiterklasse reproduziert als vom Arbeitslohn abhängige Klasse, deren gewöhnlicher Lohn hinreicht, nicht nur ihre Erhaltung zu sichern, sondern auch ihre Vermehrung.

↑ This high enough wage also presupposes enough material means of consumption, enough food and energy. Marx is silent on this, except perhaps for the implied argument that higher wages, which must be higher *real* wages, presuppose that the Malthusian trap has been overcome. Marx also does not address here the question how the supply of labor is adjusted to demand. At present he just assumes that demand and supply of labor-power coincide, just as he assumes throughout this volume that demand and supply of all the other commodities coincide. He will discuss this question in detail in the next chapter, chapter Twenty-Five.

Given all these systemic prerequisites, the individual capital has it easy again. ↓ To recon-vert surplus-value into capital, capital simply has to put the additional means of production on line and hire the workers to run them:

It is only necessary for capital to incorporate this additional labor-power, annually supplied by the working-class in the shape of laborers of all ages, with the surplus means of production comprised in the annual product, and the conversion of surplus-value into capital is complete.

Diese, ihm durch die Arbeiterklasse auf verschiedenen Altersstufen jährlich gelieferten, zuschüssigen Arbeitskräfte braucht das Kapital nur noch den in der Jahresproduktion schon enthaltenen zuschüssigen Produktionsmitteln einzuverleiben, und die Verwandlung des Mehrwerts in Kapital ist fertig.

Question 1189 Which use-values must be available on the market so that accumulation of capital can take place? 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP.

↓ The difference between simple reproduction and accumulation is therefore only quantitative.

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From a concrete point of view, accumulation resolves itself into the reproduction of capital on a progressively increasing scale. The circle in which simple reproduction moves, alters its form and, to use Sismondi's expression, changes into a spiral.^{21b}

^{21b} Sismondi's analysis of accumulation has the great defect, that he contents himself, to too great an extent, with the phrase "conversion of revenue into capital," without fathoming the material conditions of this operation.

Konkret betrachtet, löst sich die Akkumulation auf in Reproduktion des Kapitals auf progressiver Stufenleiter. Der Kreislauf der einfachen Reproduktion verändert sich und verwandelt sich, nach Sismondis Ausdruck, in eine Spirale.^{21b}

^{21b} Sismondis Analyse der Akkumulation hat den großen Fehler, daß er sich zu sehr mit der Phrase: „Umsetzung von Revenue in Kapital“ begnügt, ohne die materiellen Bedingungen dieser Operation zu ergründen.

Note that accumulation requires (1) the decision by the capitalists to reinvest the surplus-value, (2) availability of the products on the market, (3) availability of labor-power on the market. Other conditions, which Marx does not discuss here, are (4) the availability of additional money for the higher volume of transactions, (5) the availability of additional purchasing power to buy the new products, and (6) additional natural resources such as food, water, energy, minerals such as copper, iron and many others.

This concludes the first half of section 1 corresponding to the first part of the title: capitalist production on an extended scale. Marx derived here some of the conditions that the economy as a whole must satisfy for extended production to be possible. Marx showed that reproduction on an extended scale does not need an inflow of more capital from some outside, but only a re-proportioning of the use-values produced. The implications of this for the origin of the capital of the capitalists will be discussed next.

1.b. [Origin of Property]

⇓ Marx returns to the individual capitalist re-investing his surplus-value. It looks like a summary of what Marx said earlier in the chapter, but Marx is getting ready to ask a different question: what are the implications of the conversion of surplus-value into capital for the *ownership relations*?

580:2 Let us now return to our illustration. It is the old story: Abraham begat Isaac, Isaac begat Jacob, and so on. The original capital of £10,000 brings in a surplus-value of £2,000, which is capitalised. The new capital of £12,000 brings in a surplus-value of £400, and this, too, is capitalised, converted into a second additional capital, which, in its turn, produces a further surplus-value of £80. And so the ball rolls on.

607:2 Kehren wir jetzt zu unserm Beispiel zurück. Es ist die alte Geschichte: Abraham zeugte Isaak, Isaak zeugte Jakob usw. Das ursprüngliche Kapital von 10 000 Pfd.St. bringt einen Mehrwert von 2000 Pfd.St., der kapitalisiert wird. Das neue Kapital von 2000 Pfd.St. bringt einen Mehrwert von 400 Pfd.St.; dieser, wiederum kapitalisiert, also in ein zweites zusätzliches Kapital verwandelt, bringt einen neuen Mehrwert von 80 Pfd.St., usw.

The next paragraph has three preliminary remarks.

(1) In the real world, capitalists cannot convert *all* surplus-value into capital because they have to live, but Marx abstracts from this here:

580:3/o We here leave out of consideration the portion of the surplus-value consumed by the capitalist.

607:3/o Wir sehen hier ab von dem vom Kapitalisten verzehrten Teil des Mehrwerts.

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(2) Another abstraction is the assumption that the capitalist who earns the surplus-value adds it to his own capital instead of transferring it to a different capitalist:

Just as little does it concern us, for the moment, whether the additional capital is joined on to the original capital, or is separated from it to function independently; whether the same capitalist, who accumulated it, employs it, or whether he hands it over to another.

Ebensowenig interessiert es uns für den Augenblick, ob die Zusatzkapitale zum ursprünglichen Kapital geschlagen oder von ihm zu selbständiger Verwertung getrennt werden; ob derselbe Kapitalist sie ausnutzt, der sie akkumuliert hat, oder ob er sie andern überträgt.

(3) As a final preliminary remark Marx points out the limits of the metaphor with Adam, Isaac, and Jacob:

This only we must not forget, that by the side of the newly-formed capital, the original capital continues to reproduce itself, and to produce surplus-value, and that this is also true of all accumulated capital, and the additional capital engendered by it.

Nur dürfen wir nicht vergessen, daß neben den neugebildeten Kapitalen das ursprüngliche Kapital fortfährt sich zu reproduzieren und Mehrwert zu produzieren, und daß dasselbe gilt von jedem akkumulierten Kapital in Beziehung auf das von ihm erzeugte Zusatzkapital.

↑ In the biblical example, Adam has stopped having his own offspring when Isaac begets Jacob, but with capital, the original capital continues generating children alongside acquiring more and more grandchildren and great-grandchildren etc. down the generations. (This third remark will be relevant in 581:3.)

Now Marx formulates his question about the origin of capital. Although it only becomes clear with the next paragraph, his question is: Where does the capital stock of £ 12,000 at the beginning of the *second* year come from? Regarding the origin of one part of it, the original £ 10,000, the political economists give the following answer:

581:1 The original capital was formed by the advance of £10,000. How did the owner become possessed of it? "By his own labor and that of his forefathers," answer unanimously the spokespeople of Political Economy.^{21c} And, in fact, their supposition seems to be the only one consonant with the laws of the production of commodities.

^{21c} "Le travail primitif au quel son capital a du sa naissance." Sismondi, l.c., éd. Paris, t. I., p. 109.

608:1 Das ursprüngliche Kapital bildete sich durch den Vorschuß von 10 000 Pfd. St. Woher hat sie ihr Besitzer? Durch seine eigne Arbeit und die seiner Vorfahren! antworten uns einstimmig die Wortführer der politischen Ökonomie,^{21c} und ihre Annahme scheint in der Tat die einzige, die zu den Gesetzen der Warenproduktion stimmt.

^{21c} „Die ursprüngliche Arbeit, der sein Kapital seine Entstehung schuldete.“ (Sismondi, l.c., éd. Paris, t. 1, p. 109.)

Question 1190 Why does the assumption in 728:2 that the capitalist created his capital by his own labor seem to be the only assumption consonant with the laws of the production of commodities? 2012fa.

Question 1191 Veblen, in his article "The Beginnings of Ownership," [Veb98], argues against the conception that the basis of ownership lies in the creative effort of the isolated, self-sufficing individual." Compare Veblen's argument with Marx's argument given in Chapter Twenty-Four.

↑ Marx does not agree with this answer. In order to prepare his case, he contrasts this

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alleged origin of the original capital with the origin of the *new* part of the capital. We know its origin because we just witnessed it:

581:2 But it is quite otherwise with regard to the additional capital of £2,000. How that originated we know perfectly well. It is capitalized surplus-value. There is not one single atom of its value that does not owe its existence to unpaid labor.

608:2 Ganz anders verhält es sich mit dem Zusatzkapital von 2000 Pfd.St. Seinen Entstehungsprozeß kennen wir ganz genau. Es ist kapitalisierter Mehrwert. Von Ursprung an enthält er nicht ein einziges Wertatom, das nicht aus unbezahlter fremder Arbeit herstammt.

The capitalist did not pay for the surplus-value but it represents the output of the workers during the time he did not pay them. Therefore he did not pay for the material products his monetary surplus-value purchases. Note that for now, Marx skips the labor-power itself but he acts as if the capitalist purchased the workers' means of consumption and as if these means of consumption had built the product.

The means of production which absorb the additional labor-power, as well as the necessities with which the laborers are sustained, are nothing but component parts of the surplus-product, of the tribute annually exacted from the working-class by the capitalist class.

Die Produktionsmittel, denen die zuschüssige Arbeitskraft einverleibt wird, wie die Lebensmittel, von denen diese sich erhält, sind nichts als integrierende Bestandteile des Mehrprodukts, des der Arbeiterklasse jährlich durch die Kapitalistenklasse entrisenen Tributs.

But it *looks like* the capitalist paid for the means of production and consumer goods. He entered the market and paid full price for the things he bought. Marx uses a special metaphor to describe this situation, a metaphor already used in 172:5/o.

Though the latter with a portion of that tribute purchases the additional labor-power even at its full price, so that equivalent is exchanged for equivalent, yet the transaction is for all that only the old dodge of every conqueror who buys commodities from the conquered with the money he has robbed them of.

Wenn diese mit einem Teil des Tributs von jener zusätzliche Arbeitskraft kauft, selbst zum vollen Preise, so daß Äquivalent sich austauscht gegen Äquivalent—es bleibt immer das alte Verfahren des Eroberers, der den Besiegten Waren abkauft mit ihrem eigenen, geraubten Geld.

Question 1192 *How can the capitalist be compared with a conqueror who buys commodities from the conquered with the money he has robbed from them?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP.

Now Marx looks at the link left out in the previous paragraph, the laborer.

581:3 If the additional capital employs the person who produced it, this producer must not only continue to augment the value of the original capital, but must buy back the fruits of his previous labor with more labor than they cost.

608:3 Wenn das Zusatzkapital seinen eigenen Produzenten beschäftigt, so muß dieser erstens fortfahren, das ursprüngliche Kapital zu verwerten, und zudem den Ertrag seiner früheren Arbeit zurückkaufen mit mehr Arbeit, als er gekostet hat.

If the worker's unpaid labor is used to re-hire the worker, then the capitalist's ownership rights over the labor-power of the worker are no longer legitimate. Therefore he can no longer be said to be the legitimate owner of the product of labor. The wage must therefore

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be viewed as a price with which the capitalist purchases the laborer's product, but this price is too low. This ties into chapter Twenty-Three.

Question 1193 *In what way must the laborer “buy back the fruits of his previous labor with more labor than they cost”?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP.

Isn't it a good use of the unpaid labor of the workers to hire more workers? As Marx will argue in more detail in chapter Twenty-Five, see e.g. 613:1/o, this increased demand will never reach the point where it threatens the dependence of the laborers on capital:

When viewed as a transaction between the capitalist class and the working-class, it makes no difference that additional laborers are employed by means of the unpaid labor of the previously employed laborers.

Als Transaktion zwischen der Kapitalistenklasse und der Arbeiterklasse betrachtet, ändert es nichts an der Sache, wenn mit der unbezahlten Arbeit der bisher beschäftigten Arbeiter zuschüssige Arbeiter beschäftigt werden.

⇓ Here is a situation parallel to the earlier one where the difference is easier to see:

The capitalist may perhaps convert the additional capital into a machine that throws the producers of that capital out of work, and that replaces them by a few children. In every case the working-class creates by the surplus-labor of one year the capital destined to employ additional labor in the following year.²² And this is what is called: creating capital out of capital.

²² “Labor creates capital before capital employs labor.” E. G. Wakefield, “England and America,” Lond., 1833, Vol. II, p. 110.

Der Kapitalist verwandelt vielleicht auch das Zusatzkapital in eine Maschine, die den Produzenten des Zusatzkapitals aufs Pflaster wirft und durch ein paar Kinder ersetzt. In allen Fällen hat die Arbeiterklasse durch ihre diesjährige Mehrarbeit das Kapital geschaffen, das im nächsten Jahr zuschüssige Arbeit beschäftigen wird.²² Das ist es, was man nennt: Kapital durch Kapital erzeugen.

²² „Die Arbeit schafft das Kapital, bevor das Kapital die Arbeit anwendet.“ („Labor creates capital, before capital employs labor.“) (E. G. Wakefield, „England and America“, London 1833, v. II, p. 110.)

Question 1194 *If the surplus-value produced by one worker creates additional jobs for other workers, doesn't this mean that surplus-labor benefits the working class?* 2013fa, 2012fa, 2011fa.

1.c. [Inversion of the Property Laws]

Now Marx goes back to the example of the individual capitalist and carries it over several production periods. He uses this example to illustrate how the property laws of commodity production (according to which one acquires property rights only by one's own labor) are turned upside down under capitalism.

581:4/o The accumulation of the first additional capital of £2,000 pre-supposes a value of £10,000 belonging to the capitalist by virtue of his “original labor,” and advanced by him. The second additional capital of £400 pre-supposes, on the contrary, only the previous accumulation of the

609:1 Die Voraussetzung der Akkumulation des ersten Zusatzkapitals von 2000 Pfd. St. war eine vom Kapitalisten vorgeschobene, ihm kraft seiner „ursprünglichen Arbeit“ gehörige Wertsumme von 10 000 Pfd. St. Die Voraussetzung des zweiten Zusatzkapitals von 400 Pfd. St. dagegen ist nichts

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£2,000, of which the £400 is the surplus-value capitalised.

andres als die vorhergegangne Akkumulation des ersten, der 2000 Pfd.St., dessen kapitalisierter Mehrwert es ist.

In the second period, the advance necessary for the production process is no longer the “original” labor—which might have been performed by the capitalist in the past but which could also be past unpaid labor, it is impossible to tell—but now we *know* it is unpaid labor. The ownership of past unpaid labor therefore appears as the sole condition for the appropriation of living unpaid labor on a constantly increasing scale.

Eigentum an vergangner unbezahlter Arbeit erscheint jetzt als die einzige Bedingung für gegenwärtige Aneignung lebendiger unbezahlter Arbeit in stets wachsendem Umfang.

It is not income generated from property but the inertia over time of an income-generating process in which the capitalist makes no contribution. The capitalist contributes neither labor nor property.

The more the capitalist has accumulated, the more is he able to accumulate.

Je mehr der Kapitalist akkumuliert hat, desto mehr kann er akkumulieren.

↑ This is a self-reinforcing cycle, a modern word for it is “auto-catalytic.”

Question 1195 Why does Marx write “the ownership of past unpaid labor appears as the sole condition for the appropriation of living unpaid labor” instead of “the ownership of past unpaid labor is the sole condition for the appropriation of living unpaid labor”?

582:1/o In so far as the surplus-value, of which the additional capital, No. 1, consists, is the result of the purchase of labor-power with part of the original capital, a purchase that conformed to the laws of the exchange of commodities, and that, from a legal standpoint, pre-supposes nothing beyond the free disposal, on the part of the laborer, of his own capacities, and on the part of the owner of money or commodities, of the values that belong to him; in so far as the additional capital, No. 2, etc., is the mere result of No. 1, and, therefore, a consequence of the above conditions; in so far as each single transaction invariably conforms to the laws of the exchange of commodities, the capitalist buying labor-power, the laborer selling it, and we will assume at its real value; in so far as all this is true, it is evident that the laws of appropriation or laws of private property, laws that are based on the production and circulation of commodities, become by their own inner and inexorable dialectic changed into their very opposite.

609:2/o Insofern der Mehrwert, woraus Zusatzkapital Nr. I besteht, das Resultat des Ankaufs der Arbeitskraft durch einen Teil des Originalkapitals war, ein Kauf, der den Gesetzen des Warenaustausches entsprach, und, juristisch betrachtet, nichts voraussetzt als freie Verfügung auf seiten des Arbeiters über seine eignen Fähigkeiten, auf seiten des Geld- oder Warenbesitzers über ihm gehörige Werte; sofern Zusatzkapital Nr. II usw. bloß Resultat von Zusatzkapital Nr. I, also Konsequenz jenes ersten Verhältnisses; sofern jede einzelne Transaktion fortwährend dem Gesetz des Warenaustausches entspricht, der Kapitalist stets die Arbeitskraft kauft, der Arbeiter sie stets verkauft, und wir wollen annehmen selbst zu ihrem wirklichen Wert, schlägt offenbar das auf Warenproduktion und Warenzirkulation beruhende Gesetz der Aneignung oder Gesetz des Privateigentums durch seine eigne, innere, unvermeidliche Dialektik in sein direktes Gegenteil um.

There is “evidently” a dialectic involved because everything strictly follows the laws of commodity exchange, yet the result is opposite to the principles governing simple commodity production and exchange.

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Question 1196 Spell out explicitly the “law of appropriation” or “law of private property” based on commodity production and circulation. In other words, explain the principle that ultimately entitles the owner of a commodity to own his or her commodity. 2010fa.

Question 1197 What is wrong with the purchases and sales discussed in 729:2/o that they produce the inverted result of appropriation by the non-laborer?

The exchange of equivalents, the original operation with which we started, has now become turned round in such a way that only the mere semblance of exchange remains. This is owing to the fact, first, that the capital which is exchanged for labor-power is itself but a portion of the product of others’ labor appropriated without an equivalent; and, secondly, that this capital must not only be replaced by its producer, but replaced together with an added surplus. The relation of exchange between capitalist and laborer becomes a mere semblance belonging to the circulation process, a naked form, alien to and mystifying the content.

Der Austausch von Äquivalenten, der als die ursprüngliche Operation erschien, hat sich so gedreht, daß nur zum Schein ausgetauscht wird, indem erstens der gegen Arbeitskraft ausgetauschte Kapitalteil selbst nur ein Teil des ohne Äquivalent angeeigneten fremden Arbeitsproduktes ist und zweitens von seinem Produzenten, dem Arbeiter, nicht nur ersetzt, sondern mit neuem Surplus ersetzt werden muß. Das Verhältnis des Austausches zwischen Kapitalist und Arbeiter wird also nur ein dem Zirkulationsprozeß angehöriger Schein, bloße Form, die dem Inhalt selbst fremd ist und ihn nur mystifiziert.

↑ It is a form (equal exchange) in which the content (appropriation of surplus-value) does not shine through.

↓ To avoid confusions, Marx writes out explicitly what is the form and what is the content here.

The ever repeated purchase and sale of labor-power is only the form; what really takes place is this—the capitalist first appropriates, without equivalent, a portion of the materialized labor of others, and then exchanges a part of it for a greater quantity of living labor.

Der beständige Kauf und Verkauf der Arbeitskraft ist die Form. Der Inhalt ist, daß der Kapitalist einen Teil der bereits vergegenständlichten fremden Arbeit, die er sich unaufhörlich ohne Äquivalent aneignet, stets wieder gegen größeres Quantum lebendiger fremder Arbeit umsetzt.

Bloße Form could almost be translated as “naked” or “detached form.” It is a form stripped of any

connection to the content of what is actually happening. The translation chosen above is “no more than a form.”

↑ Although technically, the transaction between capitalist and laborer satisfies the definition of an exchange, Marx calls this exchange a “mere semblance” because the context usually associated with exchange is missing: it is neither voluntary nor equitable. A modern idiom might be: capitalist and laborer are only going through the motions of an exchange.

Question 1198 Why is the exchange of labor-power between capitalist and laborer a “mere semblance”? 2013fa, 2010fa, 2009fa.

Originally, the rights of property seemed to us based on a man’s own labor. At least, we had to assume this, because only

Ursprünglich erschien uns das Eigentumsrecht gegründet auf eigne Arbeit. Wenigstens mußte diese Annahme gelten, da

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commodity-owners with equal rights confront each other, and the only means by which a person can become possessed of the commodities of others, is by alienating his own commodities; and these can be produced by labor alone.

This was then. But look at it now, under capitalism:

Now, however, property rights turn out to be, on the part of the capitalist, the right to appropriate the unpaid labor of others or its product, and, on the part of the laborer, the impossibility of appropriating his own product.

Capitalist property rights are therefore the opposite of what one would expect based on simple commodity production:

The separation of property from labor has become the necessary consequence of a law that seemed to originate in their identity.²³

²³ The property of the capitalist in the product of the labour of others "is a strict consequence of the law of appropriation, the fundamental principle of which was, on the contrary, the exclusive title of every laborer to the product of his own labor." (Cherbuliez, "Richesse ou Pauvreté," Paris, 1841, p. 58, where, however, the dialectical reversal is not properly developed.)

sich nur gleichberechtigte Warenbesitzer gegenüberstehn, das Mittel zur Aneignung fremder Ware aber nur die Veräußerung der eignen Ware, und letztere nur durch Arbeit herstellbar ist.

Eigentum erscheint jetzt auf Seite des Kapitalisten als das Recht, fremde unbezahlte Arbeit oder ihr Produkt, auf Seite des Arbeiters als Unmöglichkeit, sich sein eignes Produkt anzueignen.

Die Scheidung zwischen Eigentum und Arbeit wird zur notwendigen Konsequenz eines Gesetzes, das scheinbar von ihrer Identität ausging.²³

²³ Das Eigentum des Kapitalisten an dem fremden Arbeitsprodukt „ist strenge Konsequenz des Gesetzes der Aneignung, dessen Fundamentalprinzip umgekehrt der ausschließliche Eigentumstitel jedes Arbeiters am Produkt seiner eignen Arbeit war“. (Cherbuliez, „Richesse ou Pauvreté“, Paris 1841, p. 58, wo jedoch dieser dialektische Umschlag nicht richtig entwickelt wird.)

Question 1199 *Is the inversion of the law of appropriation under capitalism due to the fact that capitalism violates the laws of commodity exchange? If not, where else does it come from?* 2012fa.

Since the laws of commodity exchange are not violated in this inversion of the property laws, this inversion must come from the own inexorable dialectic of these property laws.

The 4th German edition gives here once more a systematic review of all the different steps leading to capital accumulation, not present in the Second and Third editions, were they written by Engels? All transactions in the logical development of capital are based on the laws of commodity production and do not violate them.

Therefore, however much the capitalist mode of appropriation may seem to fly in the face of the original laws of commodity production, it nevertheless arises, not from a violation, but, on the contrary, from the application of these laws. Let us make this clear once more by briefly reviewing the consecutive phases of motion whose culminating point is capitalist accumulation.

610:1 Sosehr die kapitalistische Aneignungsweise also den ursprünglichen Gesetzen der Warenproduktion ins Gesicht zu schlagen scheint, so entspringt sie doch keineswegs aus der Verletzung, sondern im Gegenteil aus der Anwendung dieser Gesetze. Ein kurzer Rückblick auf die Reihenfolge der Bewegungsphasen, deren Schlußpunkt die kapitalistische Akkumulation ist, stelle dies nochmals klar.

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This overview distinguishes three phases. In each of these phases, a paradoxical result is obtained:

First step: the original conversion of money into capital is strictly in keeping with the laws of commodity exchange:

We saw, in the first place, that the original conversion of a sum of values into capital was achieved in complete accordance with the laws of exchange. One party to the contract sells his labor-power, the other buys it. The former receives the value of his commodity, whose use-value—labor—is thereby alienated to the buyer. Means of production which already belong to the latter are then transformed by him, with the aid of labor equally belonging to him, into a new product which is likewise lawfully his.

610:2 Zuerst haben wir gesehen, daß die ursprüngliche Verwandlung einer Wertsumme in Kapital sich durchaus gemäß den Gesetzen des Austausches vollzog. Der eine Kontrahent verkauft seine Arbeitskraft, der andre kauft sie. Der erstere empfängt den Wert seiner Ware, deren Gebrauchswert—die Arbeit—damit an den zweiten veräußert ist. Dieser verwandelt nunmehr ihm bereits gehörende Produktionsmittel mit Hilfe von ihm ebenfalls gehörender Arbeit in ein neues Produkt, das ihm ebenfalls von Rechts wegen gehört.

Now Marx (or is it Engels?) looks at every component of the value of the end product, to see whether something funny is happening:

The value of this product includes: first, the value of the used-up means of production. Useful labor cannot consume these means of production without transferring their value to the new product, but, to be saleable, labor-power must be capable of supplying useful labor in the branch of industry in which it is to be employed.

610:3 Der Wert dieses Produkts schließt ein: erstens den Wert der verbrauchten Produktionsmittel. Die nützliche Arbeit kann diese Produktionsmittel nicht verbrauchen, ohne ihren Wert auf das neue Produkt zu übertragen; um aber verkäuflich zu sein, muß die Arbeitskraft imstande sein, in dem Industriezweig, wo sie verwandt werden soll, nützliche Arbeit zu liefern.

This ties into the discussion in chapter Eight, 210:1, that it is the useful labor which transfers value.

The value of the new product further includes: the equivalent of the value of the labor-power together with a surplus-value.

610:4 Der Wert des neuen Produkts schließt ferner ein: das Äquivalent des Werts der Arbeitskraft und einen Mehrwert.

The addition of surplus-value is a surprise here, which needs more of an explanation:

This is so because the value of the labor-power—sold for a definite length of time, say a day, a week, etc.—is less than the value created by its use during that time.

Und zwar deshalb, weil die für einen bestimmten Zeitraum, Tag, Woche etc., verkaufte Arbeitskraft weniger Wert besitzt, als ihr Gebrauch während dieser Zeit schafft.

However this is not a violation of the laws of commodity exchange.

But the worker has received payment for the exchange-value of his labor-power and by so doing has alienated its use-value—this being the case in every sale and purchase.

Der Arbeiter aber hat den Tauschwert seiner Arbeitskraft bezahlt erhalten und hat damit ihren Gebrauchswert veräußert—wie das bei jedem Kauf und Verkauf der Fall.

The consumption of this use-value is beyond the realm of commodity exchange; commodity owners can do with their commodities what they want. Therefore one cannot argue that there is an inequality of use-values:

The fact that this particular commod-

610:5 Daß diese besondere Ware Arbeits-

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ity, labor-power, possesses the peculiar use-value of supplying labor, and therefore of creating value, cannot affect the general law of commodity production. If, therefore, the magnitude of value advanced in wages is not merely found again in the product, but is found there augmented by a surplus-value, this is not because the seller has been defrauded, for he has really received the value of his commodity; it has its origin in the consumption of this commodity by the buyer.

The law of exchange requires equality only between the exchange-values of the commodities given in exchange for one another. From the very outset it pre-supposes even a difference between their use-values and it has nothing whatever to do with their consumption, which only begins after the deal is closed and executed.

The laws of commodity exchange have therefore not been violated.

Thus the original conversion of money into capital is achieved in the most exact accordance with the economic laws of commodity production and with the right of property derived from them.

Nevertheless the result of this first step is very unequal. Before addressing the quantitative inequality in point 2, Marx looks at it qualitatively in point 1: a labor process in which the product of the labor does not belong to the producer is deeply paradoxical. The appropriation of the product of labor by the laborer is trumped by the non-laborer's ownership of the means of production.

Nevertheless, its result is:

1. that the product belongs to the capitalist and not to the worker;
2. that the value of this product includes, besides the value of the capital advanced, a surplus-value which costs the worker labor but the capitalist nothing, and which none the less becomes the legitimate property of the capitalist;
3. that the worker has retained his labor-power and can sell it anew if he finds a buyer.

This last point was not mentioned before: while the capitalist increases his wealth, the worker at best preserves his wealth.

Second step, simple reproduction. The repetition of the law cannot overturn it, but now one obtains the paradoxical result that the capitalists get to consume for free.

kraft den eigentümlichen Gebrauchswert hat, Arbeit zu liefern, also Wert zu schaffen, das kann das allgemeine Gesetz der Warenproduktion nicht berühren. Wenn also die in Arbeitslohn vorgeschossene Wertsumme sich in Produkt nicht bloß einfach wieder vorfindet, sondern um einen Mehrwert vermehrt vorfindet, so rührt dies nicht her aus einer Übervorteilung des Verkäufers, der ja den Wert seiner Ware erhalten, sondern nur aus dem Verbrauch dieser Ware durch den Käufer.

611:1 Das Gesetz des Austausches bedingt Gleichheit nur für die Tauschwerte der gegeneinander weggegebenen Waren. Es bedingt sogar von vornherein Verschiedenheit ihrer Gebrauchswerte und hat absolut nichts zu schaffen mit ihrem Verbrauch, der erst nach geschlossenem und vollzogenem Handel beginnt.

611:2–5 Die ursprüngliche Verwandlung des Geldes in Kapital vollzieht sich also im genauesten Einklang mit den ökonomischen Gesetzen der Warenproduktion und mit dem daraus sich ableitenden Eigentumsrecht.

Trotzdem aber hat sie zum Ergebnis:

1. daß das Produkt dem Kapitalisten gehört und nicht dem Arbeiter;
2. daß der Wert dieses Produkts, außer dem Wert des vorgeschossenen Kapitals, einen Mehrwert einschließt, der dem Arbeiter Arbeit, dem Kapitalisten aber nichts gekostet hat und der dennoch das rechtmäßige Eigentum des Kapitalisten wird;
3. daß der Arbeiter seine Arbeitskraft forterhalten hat und sie aufs neue verkaufen kann, wenn er einen Käufer findet.

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Simple reproduction is only the periodical repetition of this first operation; each time money is converted afresh into capital. Thus the law is not broken; on the contrary, it is merely enabled to operate continuously.

“Several successive acts of exchange have only made the last represent the first” (Sismondi, “Nouveaux Principes, etc.,” p. 70).

Now a reference to chapter Twenty-Three:

And yet we have seen that simple reproduction suffices to stamp this first operation, in so far as it is conceived as an isolated process, with a totally changed character.

“Of those who share the national income among themselves, the one side (the workers) acquire every year a fresh right to their share by fresh work; the others (the capitalists) have already acquired, by work done originally, a permanent right to their share” (Sismondi, l.c., pp. 110, 111).

Everybody knows that the sphere of labor is not the only one in which primogeniture works miracles.

Third step, accumulation. The miracle, which in simple reproduction only pertained to the consumption of the capitalists, applies now also to their advances of capital. Capitalists no longer only get to consume for free because they advanced their capital once in the past, but they also get to advance their capital for free.

Nor does it matter if simple reproduction is replaced by reproduction on an extended scale, by accumulation.

↑ Announcement that accumulation comes to the same result. ↓ There is a difference, but this difference does not change the character of the outcome:

In the former case the capitalist squanders the whole surplus-value in dissipation, in the latter he demonstrates his bourgeois virtue by consuming only a portion of it and converting the rest into money.

Now interpretation of this activity (re-investing part of surplus-value) from the individual point of view:

The surplus-value is his property; it has never belonged to anyone else. If he advances it for the purposes of production, the advances made come from his own funds, exactly as on the day when he first entered

611:6–7 Die einfache Reproduktion ist nur die periodische Wiederholung dieser ersten Operation; jedesmal wird, stets von neuem, Geld in Kapital verwandelt. Das Gesetz wird also nicht gebrochen, im Gegenteil es erhält nur Gelegenheit, sich dauernd zu betätigen.

Plusieurs échanges successifs n’ont fait du dernier que le représentant du premier. (Sismondi, l.c. p. 70.)

611:8–612:1 Und dennoch haben wir gesehen, daß die einfache Reproduktion hinreicht, um dieser ersten Operation—soweit sie als isolierter Vorgang gefaßt war—einen total veränderten Charakter aufzuprägen.

„Parmi ceux qui se partagent le revenu national, les uns“ (die Arbeiter) „y acquièrent chaque année un nouveau droit par un nouveau travail, les autres“ (die Kapitalisten) „y ont acquis antérieurement un droit permanent par un travail primitif.“ (Sismondi, l.c. p. 110, 111.)

Das Gebiet der Arbeit ist bekanntlich nicht das einzige, wo die Erstgeburt Wunder tut.

612:2 Es verschlägt auch nichts, wenn die einfache Reproduktion ersetzt wird durch die Reproduktion auf erweiterter Stufenleiter, durch die Akkumulation.

Bei jener vermöbelt der Kapitalist den gesamten Mehrwert, bei dieser beweist er seine Bürgertugend durch Verzehrung nur eines Teils, und Verwandlung des Restes in Geld.

612:3–4 Der Mehrwert ist sein Eigentum, er hat nie einem andern gehört. Schießt er ihn zur Produktion vor, so macht er, ganz wie am Tag, wo er zuerst den Markt beschritt, Vorschüsse aus seinem eignen

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the market. The fact that on this occasion the funds are derived from the unpaid labor of his workers makes absolutely no difference. If worker *B* is paid out of the surplus-value which worker *A* produced, then, in the first place, *A* furnished that surplus-value without having the just price of his commodity cut by a half-penny, and, in the second place, the transaction is no concern of *B*'s whatever. What *B* claims, and has a right to claim, is that the capitalist should pay him the value of his labor-power.

“Both were still gainers: the worker because he was advanced the fruits of his labor” (should read: of the unpaid labor of other workers) “before the work was done” (should read: before his own labor had borne fruit); “the employer (*le maître*), because the labor of this worker was worth more than his wages” (should read: produced more value than the value of his wages). (Sismondi, I.c., p. 135.)

The discrepancy, which we have seen now in an escalating three-step sequence, comes from the fact that the laws of commodity exchange only deal with isolated acts of exchange and with individual buyers and sellers. The snapshot view of such isolated acts cannot explain the continuous flow of production and the relations between whole classes. Commodity exchange must be viewed as the merely superficial gears and levers that keep the class relations going. It does not reveal what these class relations themselves are.

To be sure, the matter looks quite different if we consider capitalist production in the uninterrupted flow of its renewal, and if, in place of the individual capitalist and the individual worker, we view in their totality, the capitalist class and the working-class confronting each other. But in so doing we should be applying standards entirely foreign to commodity production.

Fonds. Daß dieser Fonds diesmal aus der unbezahlten Arbeit seiner Arbeiter stammt, tut absolut nichts zur Sache. Wird Arbeiter *B* beschäftigt mit dem Mehrwert, den Arbeiter *A* produziert hat, so hat erstens *A* diesen Mehrwert geliefert, ohne daß man ihm den gerechten Preis seiner Ware um einen Heller verkürzt hat, und zweitens geht dieses Geschäft den *B* überhaupt nichts an. Was *B* verlangt und das Recht hat zu verlangen, ist, daß der Kapitalist ihm den Wert seiner Arbeitskraft zahle.

„Tous deux gagnaient encore; l'ouvrier parce qu'on lui avançait les fruits de son travail“ (soll heißen du travail gratuit d'autres ouvriers) „avant qu'il fût fait;“ (soll heißen: avant que le sien ait porté de fruit) „le maître, parce que le travail de cet ouvrier valait plus que le salaire“ (soll heißen: produisait plus de valeur que celle de son salaire). (Sismondi, I.c. p. 135.)

612:5 Allerdings sieht die Sache ganz anders aus, wenn wir die kapitalistische Produktion im ununterbrochenen Fluß ihrer Erneuerung betrachten und statt des einzelnen Kapitalisten und des einzelnen Arbeiters die Gesamtheit, die Kapitalistenklasse und ihr gegenüber die Arbeiterklasse ins Auge fassen. Damit aber würden wir einen Maßstab anlegen, der der Warenproduktion total fremd ist.

Question 1200 Why is it not admissible to seek relations between whole social classes in the laws of commodity exchange? 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa.

⇓ Now a new beginning, not talking about capitalist accumulation but about commodity relations. The laws of commodity exchange do not only view the exchange acts in a snapshot fashion, but these exchange acts are also ontologically isolated!

Only buyer and seller, mutually independent, face each other in commodity production. The relations between them cease on the day when the term stipulated in the contract they concluded expires. If the transac-

612:6 In der Warenproduktion stehn sich nur, voneinander unabhängig, Verkäufer und Käufer gegenüber. Ihre gegenseitigen Beziehungen sind zu Ende mit dem Verfalltag des zwischen ihnen abgeschlossenen Ver-

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tion is repeated, it is repeated as the result of a new agreement which has nothing to do with the previous one and which only by chance brings the same seller together again with the same buyer.

trags. Wiederholt sich das Geschäft, dann infolge eines neuen Vertrags, der mit dem vorhergehenden nichts zu tun hat und bei dem nur ein Zufall denselben Käufer mit demselben Verkäufer wieder zusammenbringt.

⇓ From the isolation of the exchange acts to the atomicity of the laws of exchange:

If, therefore, commodity production, or one of its associated processes, is to be judged according to its own economic laws, we must consider each act of exchange by itself, apart from any connexion with the act of exchange preceding it and that following it. And since sales and purchases are negotiated solely between particular individuals, it is not admissible to seek here for relations between whole social classes.

613:1 Soll also die Warenproduktion oder ein ihr angehöriger Vorgang nach ihren eigenen ökonomischen Gesetzen beurteilt werden, so müssen wir jeden Austauschakt für sich betrachten, außerhalb alles Zusammenhangs mit dem Austauschakt, der ihm vorherging, wie mit dem, der ihm nachfolgt. Und da Käufe und Verkäufe nur zwischen einzelnen Individuen abgeschlossen werden, so ist es unzulässig, Beziehungen zwischen ganzen Gesellschaftsklassen darin zu suchen.

↑ Exchange relations are class-blind.

However long a series of periodical reproductions and preceding accumulations the capital functioning to-day may have passed through, it always preserves its original virginity. So long as the laws of exchange are observed in every single act of exchange the mode of appropriation can be completely revolutionised without in any way affecting the property rights which correspond to commodity production. These same rights remain in force both at the outset, when the product belongs to its producer, who, exchanging equivalent for equivalent, can enrich himself only by his own labor, and also in the period of capitalism, when social wealth becomes to an ever-increasing degree the property of those who are in a position to appropriate continually and ever afresh the unpaid labor of others.

613:2 Wie lang auch die Reihenfolge der periodischen Reproduktionen und vorhergegangenen Akkumulationen, die das heute funktionierende Kapital durchgemacht hat, es bewahrt immer seine ursprüngliche Jungfräulichkeit. Solange bei jedem Austauschakt—einzeln genommen—die Gesetze des Austausches eingehalten werden, kann die Aneignungsweise eine totale Umwälzung erfahren, ohne das, der Warenproduktion gemäße, Eigentumsrecht irgendwie zu berühren. Dieses selbe Recht steht in Kraft wie am Anfang, wo das Produkt dem Produzenten gehört und wo dieser, Äquivalent gegen Äquivalent austauschend, sich nur durch eigne Arbeit bereichern kann, so auch in der kapitalistischen Periode, wo der gesellschaftliche Reichtum in stets steigendem Maß das Eigentum derer wird, die in der Lage sind, sich stets aufs neue die unbezahlte Arbeit anderer anzueignen.

↑ The fact that commodity relations are interpersonal surface relations and not core relations gives the possibility; ⇓ the fact that labor-power is a commodity gives the necessity of the inversion of the law of appropriation.

This result becomes inevitable from the moment there is a free sale, by the laborer himself, of labor-power as a commodity.

613:3 Dies Resultat wird unvermeidlich, sobald die Arbeitskraft durch den Arbeiter selbst als Ware frei verkauft wird. Aber

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But it is also only from then onwards that commodity production is generalised and becomes the typical form of production; it is only from then onwards that, from the first, every product is produced for sale and all wealth produced goes through the sphere of circulation. Only when and where wage-labor is its basis does commodity production impose itself upon society as a whole; but only then and there also does it unfold all its hidden potentialities.

If commodity exchange seizes the whole social product only with the advent of the commodity labor-power, then the intervention of labor-power as a commodity cannot be an adulteration of commodity production,

To say that the supervision of wage-labor adulterates commodity production is to say that commodity production must not develop if it is to remain unadulterated. To the extent that commodity production, in accordance with its own inherent laws, develops further, into capitalist production, the property laws of commodity production change into the laws of capitalist appropriation.²⁴

²⁴ We may well, therefore, feel astonished at the cleverness of Proudhon, who would abolish capitalistic property by enforcing the eternal laws of property that are based on commodity production!

↑ This is the end of the insert which apparently comes from Engels.

↓ Now the concluding remark of this section. In the Second edition it is the end of the paragraph [megaII/6]537:4/oo, and in the Third edition it is [megaII/8]550:1. In capitalist accumulation, property falling under the original paradigm, if there is any, is progressively replaced by property in the capitalist paradigm.

We have seen that even in the case of simple reproduction, all capital, whatever its original source, becomes converted into accumulated capital, capitalised surplus-value. But in the flood of production all the capital originally advanced becomes a vanishing quantity (*magnitudo evanescens*, in the mathematical sense), compared with the directly accumulated capital, *i.e.*, with the surplus-value or surplus-product that is re-converted into capital, whether it functions in the hands of its accumulator, or in those of others.

auch erst von da an verallgemeinert sich die Warenproduktion und wird sie typische Produktionsform; erst von da an wird jedes Produkt von vornherein für den Verkauf produziert und geht aller produzierte Reichtum durch die Zirkulation hindurch. Erst da, wo die Lohnarbeit ihre Basis, zwingt die Warenproduktion sich der gesamten Gesellschaft auf; aber auch erst da entfaltet sie alle ihre verborgnen Potenzen.

Sagen, daß die Dazwischenkunft der Lohnarbeit die Warenproduktion fälscht, heißt sagen, daß die Warenproduktion, will sie unverfälscht bleiben, sich nicht entwickeln darf. Im selben Maß, wie sie nach ihren eignen immanenten Gesetzen sich zur kapitalistischen Produktion fortbildet, in demselben Maß schlagen die Eigentumsgesetze der Warenproduktion um in Gesetze der kapitalistischen Aneignung.²⁴

²⁴ Man bewundere daher die Pffiffigkeit Proudhons, der das kapitalistische Eigentum abschaffen will, indem er ihm gegenüber—die ewigen Eigentumsgesetze der Warenproduktion geltend macht!

613:4 Man sah, daß selbst bei einfacher Reproduktion alles vorgeschobne Kapital, wie immer ursprünglich erworben, sich in akkumuliertes Kapital oder kapitalisierten Mehrwert verwandelt. Aber im Strom der Produktion wird überhaupt alles ursprünglich vorgeschobne Kapital eine verschwindende Größe (*magnitudo evanescens* im mathematischen Sinn), verglichen mit dem direkt akkumulierten Kapital, d.h. dem in Kapital rückverwandelten Mehrwert oder Mehrprodukt, ob nun funktionierend in der Hand, die akkumuliert hat, oder in fremder Hand.

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↑ We have seen: 569:1. ↓ This has been noted in the literature.

Hence, Political Economy describes capital in general as “accumulated wealth” (converted surplus-value or revenue), “that is employed over again in the production of surplus-value,”²⁵ and the capitalist as “the owner of surplus-value.”²⁶ It is merely another way of expressing the same thing to say that all existing capital is accumulated or capitalised interest, for interest is a mere fragment of surplus-value.²⁷

²⁵ “Capital, viz., accumulated wealth employed with a view to profit.” (Malthus, l.c.) “Capital ... consists of wealth saved from revenue, and used with a view to profit.” (R. Jones: “An Introductory Lecture on Polit. Econ.,” Lond., 1833, p. 16.)

²⁶ “The possessors of surplus-produce or capital.” (“The Source and Remedy of the National Difficulties. A Letter to Lord John Russell.” Lond., 1821.)

²⁷ “Capital, with compound interest on every portion of capital saved, is so all engrossing that all the wealth in the world from which income is derived, has long ago become the interest on capital.” (London, *Economist*, 19th July, 1851.)

Die politische Ökonomie stellt das Kapital daher überhaupt dar als „akkumulierten Reichtum“ (verwandelten Mehrwert oder Revenue), „der von neuem zur Produktion von Mehrwert verwandt wird“²⁵, oder auch den Kapitalisten als „Besitzer des Mehrprodukts“²⁶. Dieselbe Anschauungsweise besitzt nur andre Form in dem Ausdruck, daß alles vorhandne Kapital akkumulierter oder kapitalisierter Zins sei, denn der Zins ist ein bloßes Bruchstück des Mehrwerts.²⁷

²⁵ „Kapital ist akkumulierter Reichtum, angewandt, um Profit zu erzielen.“ (Malthus, l.c. [p. 262.]) „Kapital ... besteht aus Reichtum, von der Revenue erspart und zur Erzielung von Profit gebraucht.“ (R. Jones, „Text-book of lectures on the Political Economy of Nations“, Hertford 1852, p. 16.)

²⁶ „Die Besitzer des Mehrprodukts oder Kapitals.“ („The Source and Remedy of the National Difficulties. A Letter to Lord John Russell“, Lond. 1821, [p. 4.])

²⁷ „Kapital, mit dem Zinseszins auf jeden Teil des gesparten Kapitals, reißt alles so sehr an sich, daß der ganze Reichtum auf der Welt, von dem Einkommen bezogen wird, schon vor langem Kapitalzins geworden ist.“ (London, „*Economist*“ 19. July 1851)

2. Erroneous Conception of Reproduction on an Increasing Scale by Political Economy

584:1 Before we further investigate accumulation or the reconversion of surplus-value into capital, we must remove an ambiguity introduced by the classical economists.

614:1 Bevor wir nun auf einige nähere Bestimmungen der Akkumulation oder der Rückverwandlung von Mehrwert in Kapital eingehn, ist eine von der klassischen Ökonomie ausgeheckte Zweideutigkeit zu beseitigen.

↑ The topic of this section is an *ambiguity* in the teachings of classical economists, i.e., a statement which is correct on the one hand and incorrect on the other. The statement in question is that accumulation of capital equals employment of productive laborers. ↓ Marx begins his discussion with a negative version of this statement which is clearly correct: the employment of laborers who perform personal services for the employer is *not* part of accumulation, these laborers are *unproductive*.

584:2–585:0a Just as little as the commodities that the capitalist buys with a part of the surplus-value for his own consumption, serve the purpose of production and of creation of value, so little is the labor that he buys for the satisfaction of his natural and social requirements, productive labor. Instead of converting surplus-value into capital, he, on the contrary, by the purchase of those commodities and that labor, consumes or expends it as revenue.

↓ This is why the economists preached: the accumulation of capital is the hiring of productive, not unproductive, workers. This was necessary at the origins of capitalism, to combat the feudalist sentiment “to consume what is at hand.”

In the face of the habitual mode of life of the old feudal nobility, which, as Hegel rightly says, “consists in consuming what is in hand,” and more especially displays itself in the luxury of personal retainers, it was extremely important for bourgeois economy to promulgate the doctrine that accumulation of capital is the first duty of every citizen, and to preach without ceasing, that a man cannot accumulate, if he eats up all his revenue, instead of spending a good part of it in the acquisition of additional productive laborers, who bring in more than they cost.

↓ This is not the only popular misconception the early capitalists had to contend with; another misconception was that accumulation of capital is the same thing as hoarding.

On the other hand the economists had to contend against the popular prejudice, that confuses capitalist production with hoarding,²⁸ and fancies that accumulated wealth is either wealth that is rescued from being destroyed in its existing form, *i.e.*, from being consumed, or wealth that is withdrawn from circulation.

²⁸ “No political economist of the present day can by saving mean mere hoarding: and beyond this contracted and insufficient proceeding, no use of the term in reference to the national wealth can well be imagined, but that which must arise from a different application of what is saved, founded upon a real distinction between the different kinds of labor maintained by it.” (Malthus, *l.c.*, pp. 38, 39.)

614:2/o So wenig die Waren, die der Kapitalist mit einem Teil des Mehrwerts für seine eigne Konsumtion kauft, ihm als Produktions- und Verwertungsmittel dienen, so wenig ist die Arbeit, die er zur Befriedigung seiner natürlichen und sozialen Bedürfnisse kauft, produktive Arbeit. Statt durch den Kauf jener Waren und Arbeit den Mehrwert in Kapital zu verwandeln, verzehrt oder verausgabt er ihn umgekehrt als Revenue.

Gegenüber der altadligen Gesinnung, die, wie Hegel richtig sagt, „im Verzehren des Vorhandenen besteht“ und namentlich auch im Luxus persönlicher Dienste sich breitmacht, war es für die bürgerliche Ökonomie entscheidend wichtig, die Akkumulation des Kapitals als erste Bürgerpflicht zu verkünden und unermüdlich zu predigen: man kann nicht akkumulieren, wenn man seine ganze Revenue aufißt, statt einen guten Teil davon zu verausgaben in Werbung zuschüssiger produktiver Arbeiter, die mehr einbringen, als sie kosten.

Andrerseits hatte sie gegen das Volksvorurteil zu polemisieren, welches die kapitalistische Produktion mit der Schatzbildung verwechselt²⁸ und daher wähnt, akkumulierter Reichtum sei Reichtum, welcher der Zerstörung in seiner vorhandenen Naturalform, also dem Verbrauch entzogen oder auch vor der Zirkulation gerettet werde.

²⁸ „Kein politischer Ökonom der heutigen Zeit kann unter Sparen nur Schatzbildung verstehen: und abgesehen von diesem abgekürzten und ungenügenden Verfahren, kann man sich keinen andren Gebrauch dieses Ausdrucks im Hinblick auf den nationalen Reichtum vorstellen als jenen, der aus der verschiedenen Verwendung des Ersparnen hervorgehen muß und auf einer wirklichen Unterscheidung zwischen den verschiedenen Arten von Arbeit basiert, die davon erhalten werden.“ (Malthus, *l.c.* p. 38, 39.)

24. Transformation of Surplus-Value into Capital

↓ This is how the economists argued against this popular misconception:

Exclusion of money from circulation would also exclude absolutely its self-expansion as capital, while accumulation of a hoard in the shape of commodities would be sheer tomfoolery.^{28a}

^{28a} Thus for instance, Balzac, who so thoroughly studied every shade of avarice, represents the old usurer Gobseck as in his second childhood when he begins to heap up a hoard of commodities.

↓ Although accumulation of commodities as a means of accumulating wealth is foolish (since these commodities lose their use-value, see 193:1), one will nevertheless find accumulation of commodities under capitalism. Marx gives three examples: market glut because of overproduction, durable consumer goods, and reserves.

The accumulation of commodities in great masses is the result either of overproduction or of a stoppage of circulation.²⁹ It is true that the popular mind is impressed by the sight, on the one hand, of the mass of goods that are stored up for gradual consumption by the rich,^{29a} and on the other hand, by the formation of reserve stocks; the latter, a phenomenon that is common to all modes of production, and on which we shall dwell for a moment, when we come to analyse circulation.

²⁹ “Accumulation of stocks . . . non-exchange . . . over-production.” (Th. Corbet, l.c., p. 104.)

^{29a} In this sense Necker speaks of the “articles of pomp and magnificence,” whose “accumulation has increased with time” and which “the laws of property have assembled together in the hands of a single class of society.” (Oeuvres de M. Necker, Paris and Lausanne, 1789, t. ii., p. 291.)

So far Marx has given the justifications for the slogan that all accumulated capital should be converted into wages for productive laborers. Now Marx points out its errors:

585:0b–585:2 Classical economy is therefore quite right, when it maintains that the consumption of surplus-products by productive, instead of by unproductive laborers, is a characteristic feature of the process of accumulation. But at this point the mistakes also begin. Adam Smith has made it the fashion, to represent accumulation as nothing more than consumption

Verschluß des Geldes gegen die Zirkulation wäre grade das Gegenteil seiner Verwertung als Kapital und Warenakkumulation im schatzbildnerischen Sinn reine Narrheit.^{28a}

^{28a} So ist bei Balzac, der alle Schattierungen des Geizes so gründlich studiert hatte, der alte Wucherer Gobseck schon verkindischt, als er anfängt, sich einen Schatz aus aufgehäuften Waren zu bilden.

Akkumulation von Waren in großen Massen ist Resultat einer Zirkulationsstockung oder der Überproduktion.²⁹ Allerdings läuft in der Volksvorstellung einerseits das Bild der im Konsumtionsfonds der Reichen gehäuften, langsam sich verzehrenden Güter unter, andererseits die Vorratbildung, ein Phänomen, das allen Produktionsweisen angehört und wobei wir einen Augenblick in der Analyse des Zirkulationsprozesses verweilen werden.

²⁹ „Akkumulation von Kapitalien . . . Aufhören des Austausches . . . Überproduktion.“ (Th. Corbet, l.c. p. 104.)

[This note is not in any of the German editions, but was included in the French translation of 1872.]

615:1–616:0 Soweit also ist die klassische Ökonomie im Recht, wenn sie den Verzehr von Mehrprodukt durch produktive Arbeiter statt durch unproduktive als charakteristisches Moment des Akkumulationsprozesses betont. Aber hier beginnt auch ihr Irrtum. A. Smith hat es zur Mode gemacht, die Akkumulation bloß als Konsumtion des Mehrprodukts durch produktive Arbeiter

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of surplus-products by productive laborers, which amounts to saying, that the capitalising of surplus-value consists in merely turning surplus-value into labor-power. Let us see what Ricardo, *e.g.*, says:

“It must be understood that all the productions of a country are consumed; but it makes the greatest difference imaginable whether they are consumed by those who reproduce, or by those who do not reproduce another value. When we say that revenue is saved, and added to capital, what we mean is, that the portion of revenue, so said to be added to capital, is consumed by productive instead of unproductive laborers. There can be no greater error than in supposing that capital is increased by non-consumption.”³⁰

³⁰ Ricardo, *l.c.*, p. 163, note.

585:3–586:0 There can be no greater error than that which Ricardo and all subsequent economists repeat after A. Smith, viz., that

“the part of revenue, of which it is said, it has been added to capital, is consumed by productive laborers.”

According to this, all surplus-value that is changed into capital becomes variable capital. So far from this being the case, the surplus-value, like the original capital, divides itself into constant capital and variable capital, into means of production and labor-power. labor-power is the form under which variable capital exists during the process of production. In this process the labor-power is itself consumed by the capitalist while the means of production are consumed by the labor-power in the exercise of its function, labor. At the same time, the money paid for the purchase of the labor-power, is converted into necessities, that are consumed, not by “productive labor,” but by the “productive laborer.” Adam Smith, by a fundamentally perverted analysis, arrives at the absurd conclusion, that even though each individual capital is divided into a constant and a variable part, the capital of so-

oder die Kapitalisierung des Mehrwerts als dessen bloßen Umsatz in Arbeitskraft darzustellen. Hören wir z.B. Ricardo:

„Man muß verstehn, daß alle Produkte eines Landes konsumiert werden; aber es macht den größten Unterschied, den man denken kann, ob sie konsumiert werden durch solche, die einen andren Wert reproduzieren, oder durch solche, die ihn nicht reproduzieren. Wenn wir sagen, daß Revenue erspart und zum Kapital geschlagen wird, so meinen wir, daß der Teil der Revenue, von dem es heißt, er sei zum Kapital geschlagen, durch produktive statt durch unproduktive Arbeiter verzehrt wird. Es gibt keinen größern Irrtum, als zu unterstellen, daß Kapital durch Nicht-Konsum vermehrt wird.“³⁰

³⁰ Ricardo. *l.c.* p. 163, Note.

616:1 Es gibt keinen größern Irrtum als der dem A. Smith von Ricardo und allen späteren nachgeplauderte, daß

„der Teil der Revenue, von dem es heißt, er sei zum Kapital geschlagen, von produktiven Arbeitern verzehrt wird“.

Nach dieser Vorstellung würde aller Mehrwert, der in Kapital verwandelt wird, zu variablem Kapital. Er teilt sich vielmehr, wie der ursprünglich vorgeschobne Wert, in konstantes Kapital und variables Kapital, in Produktionsmittel und Arbeitskraft. Arbeitskraft ist die Form, worin das variable Kapital innerhalb des Produktionsprozesses existiert. In diesem Prozeß wird sie selbst vom Kapitalisten verzehrt. Sie verzehrt durch ihre Funktion—die Arbeit—Produktionsmittel. Zugleich verwandelt sich das im Ankauf der Arbeitskraft gezahlte Geld in Lebensmittel, die nicht von der „produktiven Arbeit“, sondern vom „produktiven Arbeiter“ verzehrt werden. A. Smith gelangt durch eine grundverkehrte Analyse zu dem abgeschmackten Resultat, daß, wenn auch jedes individuelle Kapital sich in konstanten und variablen Bestandteil teilt, das gesellschaftliche Kapital sich

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ciety resolves itself only into variable capital, *i.e.*, is laid out exclusively in payment of wages.

Now Marx gives Smith's erroneous reasoning:

For instance, suppose a cloth manufacturer converts £2,000 into capital. One portion he lays out in buying weavers, the other in woollen yarn, machinery, etc. But the people, from whom he buys the yarn and the machinery, pay for labor with a part of the purchase money, and so on until the whole £2,000 are spent in the payment of wages, *i.e.*, until the entire product represented by the £2,000 has been consumed by productive laborers.

Now Marx's critique:

It is evident that the whole gist of this argument lies in the words "and so on," which send us from pillar to post. In truth, Adam Smith breaks his investigation off, just where its difficulties begin.³¹

↓ The footnote shows that other economists just repeat the error, instead of thinking them through critically:

³¹ In spite of his "Logic," John St. Mill never even detects such faulty analysis as this when made by his predecessors, an analysis which, even from the bourgeois standpoint of the science, cries out for rectification. In every case he registers with the dogmatism of a disciple, the confusion of his master's thoughts. So here: "The capital itself in the long run becomes entirely wages, and when replaced by the sale of produce becomes wages again."

in nur variables Kapital auflöst oder nur in Zahlung von Arbeitslohn verausgabt wird.

Z.B. ein Tuchfabrikant verwandle 2000 Pfd. St. in Kapital. Er legt einen Teil des Geldes im Ankauf von Webern aus, den andern Teil in Wollengarn, Wollenmaschine usw. Aber die Leute, von denen er das Garn und die Maschinerie kauft, zahlen wieder mit einem Teil davon Arbeit usw., bis die ganzen 2000 Pfd.St. in Zahlung von Arbeitslohn verausgabt sind oder das ganze durch die 2000 Pfd.St. repräsentierte Produkt durch produktive Arbeiter verzehrt ist.

Man sieht: die ganze Wucht dieses Arguments liegt in dem Wort „usw.“, das uns von Pontius zu Pilatus schickt. In der Tat, A. Smith bricht die Untersuchung grade da ab, wo ihre Schwierigkeit beginnt.³¹

³¹ Trotz seiner „Logik“ kommt Herr J. St. Mill nirgendswo auch nur solcher fehlerhaften Analyse seiner Vorgänger auf die Sprünge, welche selbst innerhalb des bürgerlichen Horizonts, vom reinen Fachstandpunkt aus, nach Berichtigung schreit. Überall registriert er mit schülermäßigen Dogmatismus die Gedankenwirren seiner Meister. Auch hier: „Auf die Dauer gesehen, löst sich das Kapital selbst völlig in Lohn auf, und wenn es durch den Verkauf des Produkts ersetzt wird, so wird es wieder zu Lohn.“

Question 1201 *How did Adam Smith try to prove that all accumulated capital is converted into variable capital? What is wrong with his analysis?*

Marx himself does not exactly break off the analysis but, after emphasizing how complicated it is, refers the reader to *Capital II*.

586:1 The annual process of reproduction is easily understood, so long as we keep in view merely the sum total of the year's production. But every single component of this product must be brought into the market as a commodity, and there the difficulty begins. The movements of the individual capitals, and of the personal revenues, cross and intermingle and are lost in the general change

617:1 Solange man nur den Fonds der Gesamt-Jahresproduktion ins Auge faßt, ist der jährliche Reproduktionsprozeß leicht verständlich. Aber alle Bestandteile der Jahresproduktion müssen auf den Warenmarkt gebracht werden, und da beginnt die Schwierigkeit. Die Bewegungen der Einzelkapitale und persönlichen Revenuen kreuzen, vermengen, verlieren sich in einem all-

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of places, in the circulation of the wealth of society; this dazes the sight, and propounds very complicated problems for solution. In the third part of Book II. I shall give the analysis of the real bearings of the facts.

gemeinen Stellenwechsel—der Zirkulation des gesellschaftlichen Reichtums—, der den Blick verwirrt und der Untersuchung sehr verwickelte Aufgaben zu lösen gibt. Im dritten Abschnitt des Zweiten Buches werde ich die Analyse des wirklichen Zusammenhanges geben.

Now three concluding remarks. ↓ (1) The physiocrats were the first who tried to solve the problem using appropriate means:

It is one of the great merits of the Physiocrats, that in their *Tableau économique* they were the first to attempt to depict the annual production in the shape in which it is presented to us after passing through the process of circulation.³²

—Es ist das große Verdienst der Physiokraten, in ihrem *Tableau économique* zum ersten Mal den Versuch gemacht zu haben, ein Bild der Jahresproduktion zu geben in der Gestalt, in welcher sie aus der Zirkulation hervorgeht.³²

(2) Footnote 32 points to a related problem whose solution was also incorrect:

³² In his description of the process of reproduction, and of accumulation, Adam Smith, in many ways, not only made no advance, but even lost considerable ground, compared with his predecessors, especially by the Physiocrats. Connected with the illusion mentioned in the text, is the really wonderful dogma, left by him as an inheritance to Political Economy, the dogma, that the price of commodities is made up of wages, profit (interest) and rent, *i.e.*, of wages and surplus-value. Starting from this basis, Storch naively confesses, “Il est impossible de résoudre le prix nécessaire dans ses éléments les plus simples.” (Storch, l.c., Petersb. Edit., 1815, t. ii., p. 141, note.) A fine science of economy this, which declares it impossible to resolve the price of a commodity into its simplest elements! This point will be further investigated in the seventh part of Book III.

³² A. Smith hat in der Darstellung des Reproduktionsprozesses, daher auch der Akkumulation, nach mancher Seite hin nicht nur keine Fortschritte, sondern entschiedene Rückschritte gemacht im Vergleich zu seinen Vorgängern, namentlich den Physiokraten. Mit seiner im Text erwähnten Illusion hängt das ebenfalls von ihm der politischen Ökonomie vererbte, wahrhaft fabelhafte Dogma zusammen, daß der Preis der Waren aus Arbeitslohn, Profit (Zins) und Grundrente, also bloß aus Arbeitslohn und Mehrwert zusammengesetzt ist. Von dieser Basis ausgehend, gesteht wenigstens Storch naiv: „Es ist unmöglich, den notwendigen Preis in seine einfachsten Elemente aufzulösen.“ (Storch, l.c., Petersb., Edit. 1815, t. II, p. 141, Note.) Eine schöne ökonomische Wissenschaft, die es für unmöglich erklärt, den Preis der Waren in seine einfachsten Elemente aufzulösen! Das Nähere hierüber wird man erörtert finden im 3. Abschn. des Zweiten und im 7. Abschn. des Dritten Buchs.

(3) Political economists exploit this error for their pro-capitalist apologetics.

587:1 For the rest, it is a matter of course, that Political Economy, acting in the interests of the capitalist class, has not failed to exploit the doctrine of Adam Smith, viz., that the whole of that part of the surplus-product which is converted into capital, is consumed by the working-class.

617:2 Es versteht sich übrigens von selbst, daß die politische Ökonomie nicht verfehlt hat, im Interesse der Kapitalistenklasse A. Smiths Satz auszubeuten: daß der ganze in Kapital verwandelte Teil des Nettoprodukts von der Arbeiterklasse verzehrt wird.

4. Division of Surplus-Value into Capital and Revenue. The Abstinence Theory

Chapter Twenty-Three and the beginning of chapter Twenty-Four discussed the two limiting cases for the division of surplus-value: either *none* of it is reinvested, or *all* of it is reinvested. Actual capitalism is somewhere in-between:

587:2 In the preceding chapter, we treated surplus-value (or the surplus-product) solely as a fund for supplying the individual consumption of the capitalist. In the present chapter we have, so far, treated it solely as a fund for accumulation. It is, however, neither the one nor the other, but is both together. One portion is consumed by the capitalist as revenue,³³ the other is employed as capital, is accumulated.

↓ Double use of the word “revenue.”

³³ The reader will notice, that the word revenue is used in a double sense: first, to designate surplus-value so far as it is the fruit periodically yielded by capital; secondly, to designate the part of that fruit which is periodically consumed by the capitalist, or added to the fund that supplies his private consumption. I have retained this double meaning because it harmonises with the language of the English and French economists.

617:3/o Im vorigen Kapitel betrachteten wir den Mehrwert, resp. das Mehrprodukt, nur als individuellen Konsumtionsfonds des Kapitalisten, in diesem Kapitel bisher nur als einen Akkumulationsfonds. Er ist aber weder nur das eine noch das andre, sondern beides zugleich. Ein Teil des Mehrwerts wird vom Kapitalisten als Revenue verzehrt,³³ ein anderer Teil als Kapital angewandt oder akkumuliert.

³³ Der Leser wird bemerken, daß das Wort Revenue doppelt gebraucht wird, erstens um den Mehrwert als periodisch aus dem Kapital entspringende Frucht, zweitens um den Teil dieser Frucht zu bezeichnen, der vom Kapitalisten periodisch verzehrt oder zu seinem Konsumtionsfonds geschlagen wird. Ich behalte diesen Doppelsinn bei, weil er mit dem Sprachgebrauch der englischen und französischen Ökonomen harmoniert.

4.a. [The Capitalist's Decision to Accumulate]

587:3 Given the mass of surplus-value, then, the larger the one of these parts, the smaller is the other. *Caeteris paribus*, the ratio of these parts determines the magnitude of the accumulation.

618:1 Bei gegebner Masse des Mehrwerts wird der eine dieser Teile um so größer sein, je kleiner der andre ist. Alle andern Umstände als gleichbleibend genommen, bestimmt das Verhältnis, worin diese Teilung sich vollzieht, die Größe der Akkumulation.

The question arises here who decides how much will be accumulated, and how much consumed. ↓ Answer: the capitalist. It is an individual decision, not an economic necessity.

But it is by the owner of the surplus-value, by the capitalist alone, that the division is made. It is an act of his will.

Wer aber diese Teilung vornimmt, das ist der Eigentümer des Mehrwerts, der Kapitalist. Sie ist also sein Willensakt.

↑ Does this mean that the rate of capitalization, i.e., the proportion of the surplus-value that is converted back into capital, is determined by the individual capitalists? Perhaps it would be better to say that it is a decision made collectively by the capitalist class as a whole. But the important point here is that it is *not* prescribed by the economic structure itself. ↓ Now Marx remarks on the odd terminology that the part that is accumulated is called “saved.”

That part of the tribute exacted by him | Von dem Teil des von ihm erhobnen Tributs,

4. Division into Capital and Revenue. Abstinence Theory

which he accumulates, is said to be saved by him, because he does not eat it, *i.e.*, because he performs the function of a capitalist, and enriches himself.

den er akkumuliert, sagt man, er spare ihn, weil er ihn nicht aufißt, d.h., weil er seine Funktion als Kapitalist ausübt, nämlich die Funktion, sich zu bereichern.

[The Capitalist Seeking Wealth and Power]

587:4/o Only to the extent that the capitalist is personified capital does he have historical value and the historic right to exist—which, to use an expression of the witty Lichnowsky, “hasn’t got no date.”

618:2 Nur soweit der Kapitalist personifiziertes Kapital ist, hat er einen historischen Wert und jenes historische Existenzrecht, das, wie der geistreiche Lichnowski sagt, keinen Datum nicht hat.

↑ Presumably Marx calls Lichnowski “witty” because the double negation “hasn’t got no date,” which parses as “does have a date,” blurts out that capitalism’s right to exist is *not* eternal but historically transitory.

↓ Dilemma: capitalist consumption negates capitalism’s albeit transitory historical mission:

And only to the extent that the capitalist is personified capital is the necessity for his own transitory existence implied in the transitory necessity for the capitalist mode of production. But, so far as he is personified capital, it is not values in use and the enjoyment of them, but exchange-value and its augmentation, that spur him into action. Fanatically bent on making value expand itself, he ruthlessly forces the human race to produce for production’s sake; he thus forces the development of the productive powers of society, and creates those material conditions, which alone can form the real basis of a higher form of society, a society in which the full and free development of every individual forms the ruling principle.

Nur soweit steckt seine eigne transitorische Notwendigkeit in der transitorischen Notwendigkeit der kapitalistischen Produktionsweise. Aber soweit sind auch nicht Gebrauchswert und Genuß, sondern Tauschwert und dessen Vermehrung sein treibendes Motiv. Als Fanatiker der Verwertung des Werts zwingt er rücksichtslos die Menschheit zur Produktion um der Produktion willen, daher zu einer Entwicklung der gesellschaftlichen Produktivkräfte und zur Schöpfung von materiellen Produktionsbedingungen, welche allein die reale Basis einer höheren Gesellschaftsform bilden können, deren Grundprinzip die volle und freie Entwicklung jedes Individuums ist.

↑ Two things to note here: (a) the capitalist, in his obsession with value, drives the rest of mankind, *i.e.*, the drive comes from the individual, not the social relation. (b) Socialism possible only on the basis of very advanced means of production. ↓ Now a comparison between miser and capitalist similar to the earlier one in 163:1/o.

Only as personification of capital is the capitalist respectable. As such, he shares with the miser the absolute drive for enrichment. But that which, in the case of the miser, appears as an individual mania, is, in the capitalist, the effect of the social mechanism in which he is but one of the gear-wheels.

Nur als Personifikation des Kapitals ist der Kapitalist respektabel. Als solche teilt er mit dem Schatzbildner den absoluten Bereicherungstrieb. Was aber bei diesem als individuelle Manie erscheint, ist beim Kapitalisten Wirkung des gesellschaftlichen Mechanismus, worin er nur ein Triebrad ist.

Question 1202 Describe as well as you can the social mechanism of which the capitalist is merely a gear-wheel. 2013fa, 2012fa, 2011fa, 2010fa, 2009fa.

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↑ If capitalists do not accumulate, then they fail to do that what justifies capitalism historically, which exposes the capitalist system to the tendency to be swept away as a historically redundant social formation. So far, accumulation is therefore not a law which is enforced by capitalist competition.

↓ Marx then adds that *in addition*, the development of the capitalist mode of production makes accumulation a necessity (and this is, indeed, a law enforced by competition, as we know it generally from the laws of capitalism, see 321:2).

Besides, the development of capitalist production makes it constantly necessary to keep increasing the amount of the capital laid out in a given industrial undertaking, and competition makes the immanent laws of capitalist production to be felt by each individual capitalist, as external coercive laws. It compels him to keep constantly extending his capital, in order to preserve it, but extend it he cannot, except by means of progressive accumulation.

Außerdem macht die Entwicklung der kapitalistischen Produktion eine fortwährende Steigerung des in einem industriellen Unternehmen angelegten Kapitals zur Notwendigkeit, und die Konkurrenz herrscht jedem individuellen Kapitalisten die immanenten Gesetze der kapitalistischen Produktionsweise als äußere Zwangsgesetze auf. Sie zwingt ihn, sein Kapital fortwährend auszu-dehnen, um es zu erhalten, und ausdehnen kann er es nur vermittelt progressiver Akkumulation.

↑ Nice passage about competition: if capitalists want to remain capitalists they must accumulate. ↓ However this social mission is in conflict with the capitalist's human needs:

588:1 So far, therefore, as his actions are a mere function of capital—endowed as capital is, in his person, with consciousness and a will—his own private consumption is a robbery perpetrated on accumulation, just as in book-keeping by double entry, the private expenditure of the capitalist is placed on the debtor side of his account against his capital.

619:1 Soweit daher sein Tun und Lassen nur Funktion des in ihm mit Willen und Bewußtsein begabten Kapitals, gilt ihm sein eigener Privatkonsum als ein Raub an der Akkumulation seines Kapitals, wie in der italienischen Buchhaltung Privatausgaben auf der Debetseite des Kapitalisten gegen das Kapital figurieren.

By promoting accumulation, the capitalist foregoes individual consumption ↑ but gains power! ↓

To accumulate, is to conquer the world of social wealth, to increase the mass of human beings exploited by him, and thus to extend both the direct and the indirect sway of the capitalist.³⁴

Die Akkumulation ist Eroberung der Welt des gesellschaftlichen Reichtums. Sie dehnt mit der Masse des exploitierten Menschensmaterials zugleich die direkte und indirekte Herrschaft des Kapitalisten aus.³⁴

↓ The footnote brings a long quote from Martin Luther how the capitalist's motivations to gain wealth and and to gain power are intertwined:

³⁴ Taking the usurer, that old-fashioned but ever renewed specimen of the capitalist for his text, Luther shows very aptly that the lust for power is an element in the drive to get rich. "The heathen were able, by the light of reason, to conclude that a usurer is a double-dyed thief and murderer. We Christians, however, hold them in such honour, that we fairly worship them for the sake of their money ... Whoever eats up, robs, and steals the nourishment of another, that man

³⁴ In der altmodischen, wenn auch stets erneuten, Form des Kapitalisten im Wucherer, veranschaulicht Luther sehr gut die Herrschsucht als Element des Bereicherungstriebes. „Die Heiden haben können aus der Vernunft rechnen, dass ein Wucherer, sey ein vierfaltiger Dieb und Mörder. Wir Christen aber halten sie in solchen ehren, das wir sie schier anbeten umb ihres Geldes willen ... Wer einem andern seine Narung aussauget, raubet und stilet, der thut eben so grossen Mord

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commits as great a murder (so far as in him lies) as he who starves a man or utterly undoes him. Such does a usurer, and sits the while safe on his stool, when he ought rather to be hanging on the gallows, and be eaten by as many ravens as he has stolen guilders, if only there were so much flesh on him, that so many ravens could stick their beaks in and share it. Meanwhile, we hang the small thieves ... Little thieves are put in the stocks, great thieves go flaunting in gold and silk ... Therefore is there, on this earth, no greater enemy of man (after the devil) than a gripe-money, and usurer, for he wants to be God over all men. Turks, soldiers, and tyrants are also bad men, yet must they let the people live, and Confess that they are bad, and enemies, and do, nay, must, now and then show pity to some. But a usurer and money-glutton, such a one would have the whole world perish of hunger and thirst, misery and want, so far as in him lies, so that he may have all to himself, and every one may receive from him as from a God, and be his serf for ever. To wear fine cloaks, golden chains, Tings, to wipe his mouth, to be deemed and taken for a worthy, pious man ... Usury is a great huge monster, like a werewolf, who lays waste all, more than any Cacus, Gerion or Antus. And yet decks himself out, and would be thought pious, so that people may not see where the oxen have gone, that he drags backwards into his den. But Hercules shall hear the cry of the oxen and of his prisoners, and shall seek Cacus even in cliffs and among rocks, and shall set the oxen loose again from the villain. For Cacus means the villain that is a pious usurer, and steals, robs, eats everything. And will not own that he has done it, and thinks no one will find him out, because the oxen, drawn backwards into his den, make it seem, from their foot-prints, that they have been let out. So the usurer would deceive the world, as though he were of use and gave the world oxen,- which he, however, rends, and eats all alone ... And since we break on the wheel, and behead highwaymen, murderers and housebreakers, how much more ought we to break on the wheel and kill ... hunt down, curse and behead all usurers." (Martin Luther, l.c.)

(so viel an jm ligt) als der einen Hungers sterbet und zu Grunde verterbet. Solches thut aber ein Wucherer, und sitzt die weil auf seinem Stuel sicher, so er billicher hangen solt am Galgen, und von soviel Raben gefressen werden, als er gülden gestolen hatte, wo anders so viel fleisches an jm were, das so viel Raben sich drein stücken und teilen kündten. Dieweil hanget man die kleinen Diebe ... Kleine Diebe ligen in Stöcken gefangen, grosse Diebe gehn in gold und seiden prangen ... Also ist auch kein grösser Menschenfeind auff Erden (nach dem Teuffel) denn ein Geitshals und Wucherer, denn er will über alle menschen Gott sein. Türcken, Krieger, Tyrannen sind auch böse Menschen, doch müssen sie lassen die Leute leben und bekennen, dass sie Böse und Feinde sind. Und können, ja müssen wol zu weilen sich über etliche erbarmen. Aber ein Wucherer und Geitzwanst, der wilt das alle Welt im müsste in Hunger und Durst, Trauer und Not verderben, so viel an jm ist, auff das ers alles allein möcht haben, und jedermann von jm, als von einem Gott empfahren und ewiglich sein Leibeigener sein. Schauben, güldne Kette, Ringe tragen, das maul wischen, sich für einen theuren, frommen Mann lassen ansehen und rühmen ... Wucher ist ein gros und ungeheur monstrum, wie ein Beerwolff, der alles wüset, mehr den kein Cacus, Gerion oder Antus. Und schmückt sich doch und wil fromm sein, das man nicht sehen sol, wo die Ochsen, die er rücklings in sein Loch zieht, hinkommen. Aber Hercules sol der Ochsen und der Gefangenen Geschrey hören und den Cacus suchen auch in Klippen und Felsen, die Ochsen wider lösen, von dem Bösewicht. Denn Cacus heisst ein Bösewicht, der ein frommer Wucherer ist, stilet, raubet, frisst alles. Und wils doch nicht gethan haben, und sol ja nimand finden, weil die Ochsen rücklings in sein Loch gezogen, scheinen und fusstapffen geben, als seien sie herausgelassen. Also wil der Wucherer auch die Welt effen, als nütze er und gebe der welt ochsen, so er sie doch zu sich allein reisst und frisst ... Und so man die Strassenräuber, Mörder und Beuheder, redert und köpffet, wie viel mehr solt man alle Wucherer redern und edern ... verjagen, verfluchen und köpfen." (Martin Luther, l.c.)

↑ Luther condemns the usurer more than the common criminal, and he compares the usurer's piety with Hercules's trick of pulling the cattle into the cave backwards. ↓ But accumulation and power are not the human needs of the capitalist:

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[The Capitalist Seeking Pleasure]

589:1–2 But original sin is at work everywhere. As capitalist production, accumulation, and wealth, become developed, the capitalist ceases to be the mere incarnation of capital. He feels compassion for for his own Adam, and his education gradually enables him to smile at the rage for asceticism, as a mere prejudice of the old-fashioned miser.

The aphorism “but original sin is at work everywhere” is apparently meant approvingly! Just as humans cannot remain subordinate to god they can also not remain subordinate to capital. Capital, which overpowers everything, does not fully subordinate the capitalist, because the capitalist is a human being.

619:2/o Aber die Erbsünde wirkt überall. Mit der Entwicklung der kapitalistischen Produktionsweise, der Akkumulation und des Reichtums, hört der Kapitalist auf, bloße Inkarnation des Kapitals zu sein. Er fühlt ein „menschliches Rühren“ für seinen eignen Adam und wird so gebildet, die Schwärmerei für Askese als Vorurteil des altmodischen Schatzbildners zu belächeln.

Question 1203 What does Marx mean with the remark “but original sin is at work everywhere” in 740:1/o? [2012fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#).

↓ Next, Marx distinguishes between the classical and the modern capitalist:

While the capitalist of the classical type brands individual consumption as a sin against his function, and as “abstinence” from accumulating, the modernised capitalist is capable of looking upon accumulation as “abstinence” from pleasure.

Während der klassische Kapitalist den individuellen Konsum als Sünde gegen seine Funktion und „Enthaltung“ von der Akkumulation brandmarkt, ist der modernisierte Kapitalist imstande, die Akkumulation als „Entsagung“ seines Genußtriebs aufzufassen.

“Two souls, alas, do dwell within his breast;
The one is ever parting from the other.”

„Zwei Seelen wohnen, ach! in seiner Brust,
die eine will sich von der andren trennen!“

↑ The word “capable” is meant approvingly here rather than ironically. Marx means what he says, even if he uses phrases which usually do not mean what they say. The capitalist’s decision to consume rather than accumulate is his personal emancipation from the imperatives of capital.

Question 1204 Is a capitalist free to decide whether to expand his business, and how much of his profit to use for personal consumption? Which mechanisms, if any, constrain him or her? [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2008fa](#), [2008SP](#), [1998WI](#), [1997sp](#), [1996ut](#).

[Historical Evolution of the Contradiction]

589:3/o At the historical dawn of capitalist production,—and every capitalist upstart has personally to go through this historical stage—avarice, and desire to get rich, are the ruling passions.

620:1 In den historischen Anfängen der kapitalistischen Produktionsweise, und jeder kapitalistische Parvenü macht dies historische Stadium individuell durch—herrschen Bereicherungstrieb und Geiz als absolute Leidenschaften vor.

↑ I.e., at the beginning, capitalists have to be frugal. Again Haeckel’s recapitulation theory.
↓ But further developed capitalism creates quick opportunities to get rich for which having credit is more important than having capital, and a certain ostentatious prodigality is a good

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means to get credit. I.e., the capitalist is motivated to consume not only by capitalism's newly created enjoyments but also by profit calculations.

Question 1205 *Bring other examples where Marx sees evidence of ontogeny recapitulating phylogeny.*

But the progress of capitalist production not only creates a world of delights; it opens, in speculation and the credit system, a thousand sources of sudden enrichment. When a certain stage of development has been reached, a conventional degree of prodigality, which is also an exhibition of wealth, and consequently a source of credit, becomes a business necessity to the “unfortunate” capitalist. Luxury enters into capital's expenses of representation.

Aber der Fortschritt der kapitalistischen Produktion schafft nicht nur eine Welt von Genüssen. Er öffnet mit der Spekulation und dem Kreditwesen tausend Quellen plötzlicher Bereicherung. Auf einer gewissen Entwicklungshöhe wird ein konventioneller Grad von Verschwendung, die zugleich Schaustellung des Reichtums und daher Kreditmittel ist, sogar zu einer Geschäftsnotwendigkeit des „unglücklichen“ Kapitalisten. Der Luxus geht in die Repräsentationskosten des Kapitals ein.

↓ Besides, there are also general reasons why the capitalist is not as frugal as the miser: In any case, unlike the miser, the capitalist does not get rich in proportion to his personal labor and restricted consumption, but at the same rate as he squeezes out the labor-power of others, and enforces on the laborer abstinence from all life's enjoyments. Although, therefore, the prodigality of the capitalist never possesses the bona-fide character of the open-handed feudal lord's prodigality, but, on the contrary, has always lurking behind it the most sordid avarice and the most anxious calculation, yet his expenditure grows with his accumulation, without the one necessarily restricting the other.

Ohnehin bereichert sich der Kapitalist nicht, gleich dem Schatzbildner, im Verhältnis seiner persönlichen Arbeit und seines persönlichen Nichtkonsums, sondern im Maß, worin er fremde Arbeitskraft aussaugt und dem Arbeiter Entsagung aller Lebensgenüsse aufzwingt. Obgleich daher die Verschwendung des Kapitalisten nie den bona fide Charakter der Verschwendung des flotten Feudalherrn besitzt, in ihrem Hintergrund vielmehr stets schmutzigster Geiz und ängstlichste Berechnung lauern, wächst dennoch seine Verschwendung mit seiner Akkumulation, ohne daß die eine die andre zu beabbruchen braucht.

↑ Although not as rampant as in feudalism, prodigality is not incompatible with capitalism. ↓ For the individual capitalist this means that he has to make the Faustian decision between accumulation and enjoyment.

But along with this growth, there is at the same time developed in his breast, a Faustian conflict between the passion for accumulation, and the desire for enjoyment.

Damit entwickelt sich gleichzeitig in der Hochbrust des Kapitalindividuums ein faustischer Konflikt zwischen Akkumulations- und Genußtrieb.

↓ Next Marx gives a historical example how the division of surplus-value between capital and revenue changed in Manchester.

590:1–591:1 Dr. Aikin says in a work published in 1795: “The trade of Manchester may be divided into four periods. First, when manufacturers were obliged to work hard for their livelihood.”

620:2–621:2 „Die Industrie von Manchester“, heißt es in einer Schrift, die Dr. Aikin 1795 veröffentlichte, „kann in vier Perioden geteilt werden. In der ersten waren die Fabrikanten gezwungen, hart für ihren Lebensunterhalt zu arbeiten.“

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They enriched themselves chiefly by robbing the parents, whose children were bound as apprentices to them; the parents paid a high premium, while the apprentices were starved. On the other hand, the average profits were low, and to accumulate, extreme parsimony was requisite. They lived like misers and were far from consuming even the interest on their capital.

“The second period, when they had begun to acquire little fortunes, but worked as hard as before,”—for direct exploitation of labor costs labor, as every slave-driver knows—“and lived in as plain a manner as before . . . The third, when luxury began, and the trade was pushed by sending out riders for orders into every market town in the Kingdom . . . It is probable that few or no capitals of £3,000 to £4,000 acquired by trade existed here before 1690. However, about that time, or a little later, the traders had got money beforehand, and began to build modern brick houses, instead of those of wood and plaster.” Even in the early part of the 18th century, a Manchester manufacturer, who placed a pint of foreign wine before his guests, exposed himself to the remarks and headshakings of all his neighbours.

Before the rise of machinery, a manufacturer's evening expenditure at the public house where they all met, never exceeded sixpence for a glass of punch, and a penny for a screw of tobacco. It was not till 1758, and this marks an epoch, that a person actually engaged in business was seen with an equipage of his own. “The fourth period,” the last 30 years of the 18th century, “is that in which expense and luxury have made great progress, and was supported by a trade extended by means of riders and factors through every part of Europe.”³⁵ What would the good Dr. Aikin say if he could rise from his grave and see the Manchester of to-day?

³⁵ Dr. Aikin: “Description of the Country

Sie bereicherten sich besonders durch Be-
stehlung der Eltern, die ihnen Jungen als
apprentices (Lehrlinge) zuwiesen und dafür
schwer blechen mußten, während die Lehr-
linge ausgehungert wurden. Andererseits wa-
ren die Durchschnittsprofite niedrig, und die
Akkumulation verlangte große Sparsamkeit.
Sie lebten wie Schatzbildner und verzehr-
ten bei weitem nicht einmal die Zinsen ihres
Kapitals.

„In der zweiten Periode hatten sie begonnen,
kleine Vermögen zu erwerben, arbeiteten aber
ebenso hart als zuvor“, denn die unmittelba-
re Exploitation der Arbeit kostet Arbeit, wie
jeder Sklaventreiber weiß, „und lebten nach
wie vor in demselben frugalen Stil. . . In der
dritten Periode begann der Luxus, und das
Geschäft wurde ausgedehnt durch Aussen-
dung von Reitern“ (berittenen Commis voya-
geurs) „für Ordres in jeder Marktstadt des
Königreichs. Es ist wahrscheinlich, daß we-
nige oder keine Kapitale von 3000 bis 4000
Pfd.St., in der Industrie erworben, vor 1690
existierten. Um diese Zeit jedoch oder etwas
später hatten die Industriellen schon Geld ak-
kumuliert und begannen steinerne Häuser statt
der von Holz und Mörtel aufzuführen. . . Noch
in den ersten Dezennien des 18. Jahrhunderts
setzte sich ein Manchester Fabrikant, der eine
Pint fremden Weins seinen Gästen vorsetzte,
den Glossen und dem Kopfschütteln aller sei-
ner Nachbarn aus.“

Vor dem Aufkommen der Maschinerie be-
trug der abendliche Konsum der Fabrikanten
in den Kneipen, wo sie zusammenka-
men, nie mehr als 6 d. für ein Glas Punsch
und 1 d. für eine Rolle Tabak. Erst 1758,
und dies macht Epoche, sah man „eine im
Geschäft wirklich engagierte Person mit
eigner Equipage!“ „Die vierte Periode“,
das letzte Drittel des 18. Jahrhunderts, „ist
die von großem Luxus und Verschwen-
dung, unterstützt durch die Ausdehnung des
Geschäfts.“³⁵ Was würde der gute Dr. Ai-
kin sagen, wenn er heutzutage in Manchester
auferstände!

³⁵ Dr. Aikin, „Description of the Country from

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from 30 to 40 miles round Manchester.” Lond., 1795, p. 182, sq.

30 to 40 miles round Manchester“ Lond. 1795, p. [181], 182 sqq., [188].

Question 1206 *How was surplus-value divided into capital and revenue in the different historical periods of capitalism?* 2011fa, 2010fa, 2009fa.

4.b. [Literature about Decision to Accumulate]

[Classical Economists]

The *classical* economists make themselves the mouthpieces of the historical mission of capital: they consider both capitalists and workers as the engines of social progress. Workers have to work (the classical economists do not deny that wealth comes from the workers), but capitalists have to accumulate.

591:2–5 Accumulate, accumulate! That is Moses and the prophets! “Industry furnishes the material which saving accumulates. Therefore, save, save, *i.e.*, reconvert the greatest possible portion of surplus-value, or surplus-product into capital! Accumulation for accumulation’s sake, production for production’s sake: by this formula classical economy expressed the historical mission of the bourgeoisie, and did not for a single instant deceive itself over the birth-throes of wealth.³⁷ But what avails lamentation in the face of historical necessity? If to classical economy, the proletarian is but a machine for the production of surplus-value; on the other hand, the capitalist is in its eyes only a machine for the conversion of this surplus-value into additional capital. Political Economy takes the historical function of the capitalist in bitter earnest.

³⁶ A. Smith, l.c., bk. II., ch. III.

³⁷ Even J. B. Say says: “Les épargnes des riches se font aux dépens des pauvres.” “The Roman proletarian lived almost entirely at the expense of society... It can almost be said that modern society lives at the expense of the proletarians, on what it keeps out of the remuneration of labor.” (Sismondi: “Études, etc.,” t. i., p. 24.)

621:3–622:3 Akkumuliert, Akkumuliert! Das ist Moses und die Propheten! „Die Industrie liefert das Material, welches die Sparsamkeit akkumuliert.“³⁶ Also spart, spart, d.h., rückverwandelt möglichst großen Teil des Mehrwerts oder Mehrprodukts in Kapital! Akkumulation um der Akkumulation, Produktion um der Produktion willen, in dieser Formel sprach die klassische Ökonomie den historischen Beruf der Bourgeoisperiode aus. Sie täuschte sich keinen Augenblick über die Geburtswehen des Reichtums,³⁷ aber was nützt der Jammer über historische Notwendigkeit? Wenn der klassischen Ökonomie der Proletarier nur als Maschine zur Produktion von Mehrwert, gilt ihr aber auch der Kapitalist nur als Maschine zur Verwandlung dieses Mehrwerts in Mehrkapital. Sie nimmt seine historische Funktion in bitterm Ernst.

³⁶ A. Smith, l.c., b. II, ch. III, [p. 367].

³⁷ Selbst J. B. Say sagt: „Die Ersparnisse der Reichen werden auf Kosten der Armen gemacht.“ „Der römische Proletarier lebte fast ganz auf Kosten der Gesellschaft... Man könnte fast sagen, daß die moderne Gesellschaft auf Kosten der Proletarier lebt, von dem Teil, den sie auf Belohnung der Arbeit ihnen entzieht.“ (Sismondi, „Études etc.“, t. I, p. 24.)

[Malthus]

Malthus assigns luxury consumption to landed aristocracy, state, and church, in order to keep those who accumulate separate from those who consume:

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In order to charm out of his bosom the awful conflict between the desire for enjoyment and the chase after riches, Malthus, about the year 1820, advocated a division of labor, which assigns to the capitalist actually engaged in production, the business of accumulating, and to the other sharers in surplus-value, to the landlords, the place-men, the benefited clergy, etc., the business of spending. It is of the highest importance, he says, "to keep separate the passion for expenditure and the passion for accumulation."³⁸

³⁸ Malthus, I.c., pp. 319, 320.

However the spokespersons of the capitalists did not like this—not because the capitalists wanted to consume, but because this does not give maximal production:

The capitalists having long been good liveries and men of the world, uttered loud cries. What, exclaimed one of their spokesmen, a disciple of Ricardo, Mr. Malthus preaches high rents, heavy taxes, etc., so that the pressure of the spur may constantly be kept on the industrious by unproductive consumers! By all means, production, production on a constantly increasing scale, runs the shibboleth; but

"production will, by such a process, be far more curbed in than spurred on. Nor is it quite fair thus to maintain in idleness a number of persons, only to pinch others, who are likely, from their characters, if you can force them to work, to work with success."³⁹

³⁹ "An Inquiry into those Principles Respecting the Nature of Demand, etc.," p. 67.

Capitalists will not produce maximally if they are "pinched," but workers apparently need this pinching:

591:6–592:1 Unfair as he finds it to spur on the industrial capitalist, by depriving his bread of its butter, yet he thinks it necessary to reduce the laborer's wages to a minimum "to keep him industrious." Nor does he for a moment conceal the fact, that the appropri-

Um seinen Busen vor dem unheilvollen Konflikt zwischen Genußtrieb und Bereicherungstrieb zu feien, verteidigte Malthus, im Anfang der zwanziger Jahre dieses Jahrhunderts, eine Teilung der Arbeit, welche dem wirklich in der Produktion begriffenen Kapitalisten das Geschäft der Akkumulation, den andren Teilnehmern am Mehrwert, der Landaristokratie, Staats-, Kirchenpfündnern usw., das Geschäft der Verschwendung zuweist. Es ist von der höchsten Wichtigkeit, sagt er, „die Leidenschaft für Ausgabe und die Leidenschaft für Akkumulation (the passion for expenditure and the passion for accumulation) getrennt zu halten“³⁸.

³⁸ Malthus, I.c. p. 319, 320.

Die Herrn Kapitalisten, seit lange in Lebe- und Weltmänner verwandelt, schrien auf. Was, rief einer ihrer Wortführer, ein Ricardianer, Herr Malthus predigt hohe Grundrenten, hohe Steuern usw., um dem Industriellen einen fortwährenden Stachel durch unproduktive Konsumenten aufzudrücken! Allerdings Produktion, Produktion auf stets erweiterter Stufenleiter, lautet das Schibboleth, aber

„Produktion wird durch einen solchen Prozeß weit mehr gehemmt als gefördert. Auch ist es nicht ganz billig (nor is it quite fair), eine Anzahl Personen so im Müßiggang zu erhalten, nur um andre zu kneipen, aus deren Charakter man schließen darf (who are likely, from their characters), daß, wenn ihr sie zu funktionieren zwingen könnt, sie mit Erfolg funktionieren.“³⁹

³⁹ „An Inquiry into those principles respecting the Nature of Demand etc.“, p. 67.

622:2 So unbillig er es findet, den industriellen Kapitalisten zur Akkumulation zu stacheln, indem man ihm das Fett von der Suppe weggchöpft, so notwendig dünkt ihm, den Arbeiter möglichst auf den Minimallohn zu beschränken, „um ihn arbeit-

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tion of unpaid labor is the secret of surplus-value.

“Increased demand on the part of the laborers means nothing more than their willingness to take less of their own product for themselves, and leave a greater part of it to their employers; and if it be said, that this begets glut, by lessening consumption” (on the part of the laborers), “I can only reply that glut is synonymous with large profits.”⁴⁰

⁴⁰ l.c., p. 59.

sam zu erhalten“. Auch verheimlicht er keinen Augenblick, daß Aneignung unbezahlter Arbeit das Geheimnis der Plusmacherei ist.

„Vermehrte Nachfrage von Seite der Arbeiter meint durchaus nichts als ihre Geneigtheit, weniger von ihrem eignen Produkt für sich selbst zu nehmen und einen größeren Teil davon ihren Anwendern zu überlassen; und wenn man sagt, daß dies, durch Verminderung der Konsumtion“ (auf seiten der Arbeiter) „glut“ (Marktüberfüllung, Überproduktion) „erzeugt, so kann ich nur antworten, daß glut synonym mit hohem Profit ist.“⁴⁰

⁴⁰ l.c. p. 59.

[Abstinence Theory]

In face of the resistance of the proletariat, the economists, who previously had taken the side of the capitalists in the conflict between capitalists and idle landowners, turn into apologists for capital.

592:2–593:3 The learned disputation, how the booty pumped out of the laborer may be divided, with most advantage to accumulation, between the industrial capitalist and the rich idler, was hushed in face of the revolution of July. Shortly afterwards, the town proletariat at Lyons sounded the tocsin of revolution, and the country proletariat in England began to, set fire to farm-yards and corn-stacks. On this side of the Channel Owenism began to spread; on the other side, St. Simonism and Fourierism. The hour of vulgar economy had struck.

622:3/oo Der gelehrte Zank, wie die dem Arbeiter ausgepumpte Beute förderlichst für die Akkumulation zu verteilen sei zwischen industriellem Kapitalist und müßigem Grundeigentümer usw., verstummte vor der Julirevolution. Kurz nachher läutete das städtische Proletariat die Sturmglocke zu Lyon und ließ das Landproletariat den roten Hahn in England fliegen. Diesseits des Kanals grassierte der Owenismus, jenseits St.-Simonismus und Fourierismus. Die Stunde der Vulgärökonomie hatte geschlagen.

Question 1207 *What is the difference between classical and vulgar economists? (Compare also the afterword to the second German edition, pp. 95:1–98:3 of vol. 1 of Capital.) 2012fa.*

The “vulgar economists” take the opposite point of view of the classical economists. Instead of the duty to accumulate they emphasize the capitalist’s right *not* to accumulate. The capitalist becomes the abstaining saint.

Exactly a year before Nassau W. Senior discovered at Manchester, that the profit (including interest) of capital is the product of the last hour of the twelve, he had announced to the world another discovery. “I substitute,” he proudly says, “for the word capital, considered as an instrument of pro-

Grade ein Jahr, bevor Nassau W. Senior zu Manchester ausfand, daß der Profit (inkl. Zins) des Kapitals das Produkt der unbezahlten „letzten zwölften Arbeitsstunde“ ist, hatte er der Welt eine andre Entdeckung angekündigt. „Ich“, sagte er feierlich, „ich ersetze das Wort Kapital, als Produktionsin-

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duction, the word abstinence.” An unparalleled sample this, of the discoveries of vulgar economy! It substitutes for an economic category, a sycophantic phrase—*voilà tout*.

strument betrachtet, durch das Wort Abstinenz (Enthaltung).“⁴¹ Ein unübertroffenes Muster dies von den „Entdeckungen“ der Vulgärökonomie! Sie ersetzt eine ökonomische Kategorie durch eine sykopphantische Phrase. Voila tout.

That profits should come from not doing something is fundamentally at odds with Marx’s brand of realism. Value is a positive “real” entity because it has real effects. These effects must come from something, they cannot come from *not* doing something. This is so obvious to Marx that he does not feel the need to spell it out in so many words. But the footnotes bring quotes where he finds this thought formulated in the literature. ↓ Cazenove’s formulation probably found Marx’s full approval:

⁴¹ (Senior, „Principes fondamentaux de l’Écon. Pol.” trad. Arrivabene. Paris, 1836, p. 308.) This was rather too much for the adherents of the old classical school. “Mr. Senior has substituted for it” (the expression Labor and Profit) “the expression Labor and Abstinence. Abstinence is a mere negation. It is not the abstinence, but the *use* of the capital productively, which is the cause of profits.” (John Cazenove, [Mal53, p. 130, Note].)

⁴¹ Senior, „Principes fondamentaux de l’Écon. Pol.” trad. Arrivabene, Paris 1836, p. 309. Dies war den Anhängern der alten klassischen Schule doch etwas zu toll. „Herr Senior schiebt dem Ausdruck Arbeit und Kapital den Ausdruck Arbeit und Abstinenz unter ... Abstinenz ist eine bloße Negation. Es ist nicht die Abstinenz, sondern der Gebrauch des produktiv verwandten Kapitals, welcher die Quelle des Profits bildet.“ (John Cazenove, l.c. p. 130, Note.)

All English translations of *Capital* which I consulted say “it is not capital” where Cazenove’s original footnote and Marx’s German

translation of it say “it is not abstinence.” This translation error is in [Mar90, p. 517], [Mar96, p. 582], [Mar30, p. 656], and

[Mar76, p. 744]. It is amazing that this obvious error has not been caught.

Marx’s German translation of Cazenove’s footnote is somewhat abbreviated, and the English version given here is a re-translation of Marx’s abbreviated version back into English. The original text of Cazenove’s footnote in [Mal53, p. 130] is the following:

The expression *Labour and Profits* is liable to this objection, that the two are not correlative terms,—labour being an *agent* and profits a *result*; the one a *cause*, the other a *consequence*. On this account Mr. Senior has substituted for it the expression *Labour and Abstinence*, (see his article on *Political Economy* in the “Encyclopaedia Metropolitana.”) He who converts his revenue into capital, *abstains* from the enjoyment which its expenditure would afford him. It must be acknowledged, indeed, that it is not the abstinence, but the *use* of the capital productively, which is the cause of profits. It would, however, perhaps be difficult to find another word on the whole less objectionable.—*Editor*.

While Cazenove correctly criticizes the abstinence theory, John St. Mill mixes wrong and right theories without seeing their inconsistency:

^{41 ctd} John St. Mill, on the contrary, accepts on the one hand Ricardo’s theory of profit, and annexes on the other hand Senior’s “remuneration of abstinence.” He is as much at home in absurd contradictions, as he feels at sea in the Hegelian contradiction, the source of all dialectic.

^{41 ctd} Herr John St. Mill exzerpiert dagegen auf der einen Seite Ricardos Profittheorie und annexiert auf der andren Seniors „remuneration of abstinence“. So fremd ihm der Hegelsche „Widerspruch“, die Springquelle aller Dialektik, so heimisch ist er in platten Widersprüchen.

In the remainder of the footnote, Marx brings his own critique of the abstinence theory:

^{41 ctd} It has never occurred to the vulgar economist to make the simple reflexion, that

^{41 ctd} Zusatz zur 2. Ausg. Der Vulgärökonom hat nie die einfache Reflexion angestellt daß je-

4. Division into Capital and Revenue. Abstinence Theory

every human action may be viewed, as “abstinence” from its opposite. Eating is abstinence from fasting, walking, abstinence from standing still, working, abstinence from idling, idling, abstinence from working, etc. These gentlemen would do well, to ponder, once in a way, over Spinoza’s: “Determinatio est Negatio.”

de menschliche Handlung als „Enthaltung“ von ihrem Gegenteil aufgefaßt werden kann. Essen ist Enthaltung von Fasten, Gehen Enthaltung von Stehn, Arbeiten Enthaltung von Faulenzen, Faulenzen Enthaltung von Arbeiten etc. Die Herren täten wohl, einmal nachzudenken über Spinozas: Determinatio est negatio.

Question 1208 *How does Marx, on a philosophical level, criticize the concept of opportunity cost?* 2013fa, 2009fa.

The next passage explains why abstinence theory cannot be applied to primitive production:

“When the savage,” says Senior, “makes bows, he exercises an industry, but he does not practise abstinence.”⁴¹ This explains how and why, in the earlier states of society, the implements of labor were fabricated without abstinence on the part of the capitalist. “The more society progresses, the more abstinence is demanded,”⁴² namely, from those who ply the industry of appropriating the fruits of others’ industry.

„Wenn der Wilde“, doziert Senior, „Bogen fabriziert, so übt er eine Industrie aus, aber er praktiziert nicht die Abstinenz.“ Dies erklärt uns, wie und warum in früheren Gesellschaftszuständen „ohne die Abstinenz“ des Kapitalisten Arbeitsmittel fabriziert wurden. „Je mehr die Gesellschaft fortschreitet, um so mehr Abstinenz erfordert sie“⁴², nämlich von denen, welche die Industrie ausüben, sich die fremde Industrie und ihr Produkt anzueignen.

⁴² Senior, l.c., p. 342.

⁴² Senior, l.c. p. 342, 343.

Now Marx’s critique of the abstinence theory:

All the conditions for carrying on the labor-process are suddenly converted into so many acts of abstinence on the part of the capitalist. If the corn is not all eaten, but part of it also sown—abstinence of the capitalist. If the wine gets time to mature—abstinence of the capitalist.⁴³ The capitalist robs his own self, whenever he “lends (!) the instruments of production to the laborer,” that is, whenever by incorporating labor-power with them, he uses them to extract surplus-value out of that labor-power, instead of eating all these steam-engines, cotton, railways, manure, horses, and all; or as the vulgar economist childishly imagines, instead of squandering “their value” in luxuries and other articles of consumption.⁴⁴ How the capitalists as a class are to perform that feat, is a secret that vulgar economy has hitherto obstinately refused to divulge.

Alle Bedingungen des Arbeitsprozesses verwandeln sich von nun in ebenso viele Abstinenzpraktiken des Kapitalisten. Daß Korn nicht nur gegessen, sondern auch gesät wird, Abstinenz des Kapitalisten! Daß der Wein die Zeit erhält, auszugären, Abstinenz des Kapitalisten!⁴³ Der Kapitalist beraubt seinen eignen Adam, wenn er die „Produktionsinstrumente dem Arbeiter leiht“ (!), alias sie durch Einverleibung der Arbeitskraft als Kapital verwertet, statt Dampfmaschinen, Baumwolle, Eisenbahnen, Dünger, Zugpferde usf. aufzuessen oder, wie der Vulgärökonom sich das kindlich vorstellt, „ihren Wert“ in Luxus und andren Konsumtionsmitteln zu verprassen.⁴⁴ Wie die Kapitalistenklasse das anstellen soll, ist ein von der Vulgärökonomie bisher hartnäckig bewahrtes Geheimnis.

⁴³ “No one ... will sow his wheat, for instance, and allow it to remain a twelvemonth in

⁴³ „Kein Mensch ... wird z.B. seinen Weizen aussäen und ihn ein Jahr im Boden liegen oder

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the ground, or leave his wine in a cellar for years, instead of consuming these things or their equivalent at once ... unless he expects to acquire additional value, etc.” (Scrope, “Polit. Econ.,” edit. by A. Potter, New York, 1841, pp. 133–134.)

⁴⁴ “La privation que s’impose le capitaliste, en prêtant (this euphemism used, for the purpose of identifying, according to the approved method of vulgar economy, the laborer who is exploited, with the industrial capitalist who exploits, and to whom other capitalists lend money) ses instruments de production au travailleur au lieu d’en consacrer la valeur à son propre usage, en la transforment en objets d’utilité ou d’agrément.” (G. de Molinari, l.c., p. 36.)

seinen Wein jahrelang im Keller lassen, statt diese Dinge oder ihre Äquivalente sofort zu konsumieren ... wenn er nicht erwartete, zusätzlichen Wert zu erhalten etc.“ (Scrope, „Polit. Econ.“, edit. von A. Potter, New York 1841, p. 133.)

⁴⁴ „Die Entbehrung, die sich der Kapitalist auferlegt, indem er seine Produktionsmittel an den Arbeiter verleiht“ (diesen Euphemismus gebraucht, um nach probater vulgärökonomischer Manier den vom industriellen Kapitalisten exploitierten Lohnarbeiter mit dem industriellen Kapitalisten selbst zu identifizieren, welcher vom Geldverleihenden Kapitalisten pumpt!), „statt ihren Wert seinem eignen Gebrauch zu widmen, indem er sie in nützliche oder angenehme Gegenstände verwandelt.“ (G. de Molinari, l.c. p. 36.)

Question 1209 Does Marx’s theory of capitalism allow the interpretation that the capitalist loans the means of production to the worker? Justify your answer. 2012fa, 2011fa.

Enough, that the world still jogs on, solely through the self-chastisement of this modern penitent of Vishnu, the capitalist. Not only accumulation, but the simple “conservation of a capital requires a constant effort to resist the temptation of consuming it.”⁴⁵ The simple dictates of humanity therefore plainly enjoin the release of the capitalist from this martyrdom and temptation, in the same way that the Georgian slave-owner was lately delivered, by the abolition of slavery, from the painful dilemma, whether to squander the surplus-product, lashed out of his niggers, entirely in champagne, or whether to reconvert a part of it into more niggers and more land.

⁴⁵ “La conservation d’un capital exige ... un effort constant pour résister à la tentation de le consommer.” (Courcelle-Seneuil, l.c., p. 57.)

Genug, die Welt lebt nur noch von der Selbstkasteiung dieses modernen Büßers des Wischnu, des Kapitalisten. Nicht nur die Akkumulation, die einfache „Erhaltung eines Kapitals erheischt beständige Kraftanstrengung, um der Versuchung zu widerstehn, es aufzuessen“.⁴⁵ Die einfache Humanität gebeut also offenbar, den Kapitalisten von Martyrtum und Versuchung zu erlösen, in derselben Weise, wie der georgische Sklavenhalter jüngst durch Abschaffung der Sklaverei von dem schmerzlichen Dilemma erlöst ward, ob das dem Neger-sklaven ausgepeitschte Mehrprodukt ganz in Champagner zu verjubeln oder auch teilweise in mehr Neger und mehr Land rückzuverwandeln.

⁴⁵ „La conservation d’un capital exige ... un effort ... constant pour résister à la tentation de le consommer.“ (Courcelle-Seneuil, l.c. p. 20.)

Question 1210 What is the “Abstinence Theory”? 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP.

After showing the philosophical absurdity of this way of thinking, Marx gives now a careful economic refutation of the abstinence theory:

594:1 In economic forms of society of the most different kinds, there occurs, not only simple reproduction, but, in varying

624:1/o In den verschiedensten ökonomischen Gesellschaftsformationen findet nicht nur einfache Reproduktion statt, sondern,

4. Division into Capital and Revenue. Abstinence Theory

degrees, reproduction on a progressively increasing scale. By degrees more is produced and more consumed, and consequently more products have to be converted into means of production. This process, however, does not present itself as accumulation of capital, nor as the function of a capitalist, so long as the laborer's means of production, and with them, his product and means of subsistence, do not confront him in the shape of capital.⁴⁶

Expanded reproduction is happening in many different social formations, but only if the means of production are the private property of the capitalist will it take the social form of being the function of a capitalist. The abstinence theory therefore imputes a social process to the decision and merit of an individual.

Footnote 46 and the rest of the paragraph give examples of alternative social forms of this expanded reproduction:

⁴⁶ "The particular classes of income which yield the most abundantly to the progress of national capital, change at different stages of their progress, and are, therefore, entirely different in nations occupying different positions in that progress ... Profits ... unimportant source of accumulation, compared with wages and rents, in the earlier stages of society ... When a considerable advance in the powers of national industry has actually taken place, profits rise into comparative importance as a source of accumulation." (Richard Jones, "Textbook, etc.," pp. 16, 21.)

Richard Jones, who died a few years ago, and was the successor of Malthus in the chair of Political Economy at Haileybury College, discusses this point well in the light of two important facts. Since the great mass of the Hindu population are peasants cultivating their land themselves, their products, their instruments of labor and means of subsistence never take "the shape of a fund saved from revenue, which fund has, therefore, gone through a previous process of accumulation."⁴⁷ On the other hand, the non-agricultural laborers in those provinces where the English rule has least disturbed the old system, are directly employed by the magnates, to whom a portion of the agri-

obgleich auf verschiedenem Maßstab, Reproduktion auf erweiterter Stufenleiter. Es wird progressiv mehr produziert und mehr konsumiert, also auch mehr Produkt in Produktionsmittel verwandelt. Dieser Prozeß erscheint aber nicht als Akkumulation von Kapital und daher auch nicht als Funktion des Kapitalisten, solange dem Arbeiter seine Produktionsmittel, daher auch sein Produkt und seine Lebensmittel, noch nicht in der Form von Kapital gegenüberstehn.⁴⁶

⁴⁶ „Die besonderen Einkommensklassen, die am reichlichsten zum Fortschritt des nationalen Kapitals beitragen, ändern sich auf verschiedenen Stufen ihrer Entwicklung und sind infolgedessen gänzlich verschieden bei Nationen, die verschiedene Positionen in der Entwicklung einnehmen ... Profite ... eine unwichtige Quelle der Akkumulation, im Vergleich zu Löhnen und Renten, auf den früheren Stufen der Gesellschaft ... Wenn ein beträchtliches Anwachsen in den Kräften der nationalen Industrie tatsächlich stattgefunden hat, erlangen die Profite eine vergleichsweise größere Wichtigkeit als Quelle der Akkumulation.“ (Richard Jones, „Textbook etc.“, p. 16, 21.)

Der vor einigen Jahren verstorbene Richard Jones, Nachfolger von Malthus auf dem Lehrstuhl der politischen Ökonomie am ostindischen College zu Haileybury, erörtert dies gut an zwei großen Tatsachen. Da der zahlreichste Teil des indischen Volks selbstwirtschaftende Bauern, existiert ihr Produkt, ihre Arbeits- und Lebensmittel, auch nie in der Form (in the shape) eines Fonds, der aus fremder Revenue erspart wird (saved from Revenue) und daher einen vorläufigen Prozeß der Akkumulation (a previous process of accumulation) durchlaufen hat⁴⁷. Andererseits werden die nicht-agrikolen Arbeiter in den Provinzen, wo die englische Herrschaft das alte Sy-

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cultural surplus-product is rendered in the shape of tribute or rent. One portion of this product is consumed by the magnates in kind, another is converted, for their use, by the laborers, into articles of luxury and such like things, while the rest forms the wages of the laborers, who own their implements of labor. Here, production and reproduction on a progressively increasing scale, go on their way without any intervention from that queer saint, that knight of the woeful countenance, the capitalist “abstainer.”

stem am wenigsten aufgelöst hat, direkt von den Großen beschäftigt, denen eine Portion des ländlichen Mehrprodukts als Tribut oder Grundrente zufließt. Ein Teil dieses Produkts wird in Naturalform von den Großen verzehrt, ein anderer Teil für sie von den Arbeitern in Luxus- und sonstige Konsumtionsmittel verwandelt, während der Rest den Lohn der Arbeiter bildet, die Eigentümer ihrer Arbeitsinstrumente sind. Produktion und Reproduktion auf erweiterter Stufenleiter gehn hier ihren Gang ohne alle Dazwischenkunft jenes wunderlichen Heiligen, jenes Ritters von der traurigen Gestalt, des „entsagenden“ Kapitalisten.

Question 1211 *Why does Marx call the “abstaining” capitalist a Don Quixote (knight of the woeful countenance)?* [2013fa](#), [2012fa](#), [2008fa](#).

⁴⁷ l.c., p. 36, sq.

⁴⁷ l.c. p. 36 sq. {Zur 4.Aufl.—Muß ein Versehen sein, die Stelle ist nicht gefunden worden.—F. E.}

Question 1212 *What is to be said about the theory that profits are the reward for the “abstinence” of the capitalists? How does Marx propose to relieve the capitalist’s pain suffered because of the temptation to consume his capital?*

25. General Law of Capitalist Accumulation

With the development of the factory system, called by Marx the “real subsumption of the labor process under capital,” capital re-shapes the production process according to its needs. In the present chapter, Marx shows that capital also subordinates the reproduction of the *working class* to its needs. The system of capital accumulation is able to integrate the labor-market into its own logic so that disruptions in labor supply won’t disturb or constrain capital accumulation.

1. A Growing Demand for Labor-Power Accompanies Accumulation Under Equal Composition of Capital

An impasse is looming in the accumulation process: sooner or later, the accumulation of capital must run into the limitations of population growth. Instead of being scarce, one should expect that capital will eventually be abundant. Does this mean the accumulation of capital is constrained by population growth? Marx argues that it is not. Capital comes to control the supply of the exploitable material on which its accumulation depends.

607:4 In this chapter we shall consider the influence of the growth of capital on the fate of the working class.

640:1 Wir behandeln in diesem Kapitel den Einfluß, den das Wachstum des Kapitals auf das Geschick der Arbeiterklasse ausübt.

Question 1213 *If it is true that the laborers produce all the value, it is necessary to explain why they do not get it. This question becomes especially puzzling if one considers the exponential character of the accumulation of capital. One should expect labor demand to eventually outrun the labor supply, so that the labor market will eventually become a seller’s market. Which mechanisms prevent this from happening?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2004fa.

Instead of being subservient to population growth, capital accumulation *influences* not only the *growth* of the working class but also many other aspects of working class lives. Just like humans, in agriculture, control the growth of the food they need, capital controls the growth of the labor-supply which it needs. Capitalist wealth, therefore, is not only the command over material things but also over the social reproduction process of labor-power.

Hegel knew that everything contains its opposite. Modern systems theory knows that almost every optimization leads to gradual cumulative changes in some of the underlying parameters which will eventually lead to the breakdown of this optimization. In the capitalist system, one of these parameters is the organic composition of capital. Its growth causes the profit rate to fall. But variations in the speed of its growth also immunize the system against shortages in the labor supply. Marx spends several paragraphs on this parameter.

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The most important factor in this investigation is the composition of capital, and the changes which it undergoes during the accumulation process.

Der wichtigste Faktor bei dieser Untersuchung ist die Zusammensetzung des Kapitals und die Veränderungen, die sie im Verlauf des Akkumulationsprozesses durchmacht.

In order to explain the mechanisms which allow capital to control the supply of labor rather than being controlled by it, Marx introduces the concepts of technical composition, value composition, and organic composition. In a nutshell, capital is not limited by the growth of the labor force because it can adjust the rate and composition of its accumulation.

Note that Marx introduces the composition of capital here as the solution to an *epistemic* question, namely, as “the most important factor in this *investigation*” (my italics). He usually avoids such formulations and makes it clear that he only introduces those concepts for explanatory purposes which also play a role in the processes he is explaining. The French version [megaII/7]534:1 is more mindful of this issue: it says that the composition of capital is the most important *given* (my italics because something “given” is an ontological issue) for the solution of this (epistemic) problem.

1.a. [The Composition of Capital]

One can speak of a “composition” of capital because capital is not uniform. It is composed of heterogeneous parts.

607:5/o The composition of capital is to be understood in a twofold sense.

640:2 Die Zusammensetzung des Kapitals ist in zweifachem Sinn zu fassen.

↑ This non-uniformity can be defined in two different ways. Considered under the aspect of *value*, capital can be divided into two parts which fundamentally differ from each other, and considered under the aspect of *use-value*, it can also be divided into two parts which fundamentally differ from each other. ↓ Marx first looks at capital under the aspect of *value*. The definition of capital is self-expanding value. Here the fundamental difference between different parts of capital is that only a part of the capital increases its value during $M - C - M'$, while a different part of capital is constant, i.e., does not change value during its circuit:

On the one hand, with respect to value, it is determined by the proportion in which capital is divided into constant capital, i.e., the value of the means of production, and variable capital, i.e., the value of labor-power, the sum of the wages paid.

Nach der Seite des Werts bestimmt sie sich durch das Verhältnis, worin es sich teilt in konstantes Kapital oder Wert der Produktionsmittel und variables Kapital oder Wert der Arbeitskraft, Gesamtsumme der Arbeitslöhne.

↑ The definitions of constant capital and variable capital were given in chapter Eight. To recapitulate, constant capital is that part of the capital which is laid out in means of production (materials, supplies, and instruments or machines). Variable capital is the capital laid out in labor-power. The value of the “constant” capital does not change during the production process, while the value of the “variable” capital does change. Only the variable capital is source of surplus-value for the capitalist.

↓ The most generic use-value form of capital is productive capital. If one lists the use-values assumed by productive capital in the production process, one can again divide the elements of the production process into two basic categories, namely, labor and means of production:

1. Accumulation Under Equal Composition of Capital

On the other hand, with respect to the physical aspect of the production process, all capital is divided into means of production and living labor-power. Here its composition is determined by the relation between the mass of the means of production employed and the mass of labor necessary for their employment.

Nach der Seite des Stoffs, wie er im Produktionsprozeß fungiert, teilt sich jedes Kapital in Produktionsmittel und lebendige Arbeitskraft; diese Zusammensetzung bestimmt sich durch das Verhältnis zwischen der Masse der angewandten Produktionsmittel einerseits und der zu ihrer Anwendung erforderlichen Arbeitsmenge andererseits.

↑ This is a basic distinction inherent in every production process, whether or not it is capitalist. ↓ These two ways to separate capital into two different components are related but not identical. Marx calls the first “value composition” and the second “technical composition.”

I call the former the value-composition, the latter the technical composition of capital.

Ich nenne die erstere die Wertzusammensetzung, die zweite die technische Zusammensetzung des Kapitals.

↑ The value composition of capital is constant capital divided by variable capital, i.e., the machinery and materials (measured in value) divided by labor (measured in value of labor-power). It is therefore a pure number (dollars divided by dollars). The technical composition, by contrast, is mass of means of production per hours of labor. It cannot be represented numerically. ↓ Despite their differences, the two compositions are closely related:

Between the two there is a close mutual relationship.

Zwischen beiden besteht enge Wechselbeziehung.

↑ Unfortunately, Marx leaves it at this laconic remark and does not say more about it. Clearly, the technical composition is causally prior to the value composition. And clearly, technical progress usually requires a higher technical composition, i.e., more machines and materials per worker. But from the following development one can infer that Marx assumed that technical progress also usually requires a higher *value* composition. In other words, he did not believe that this greater mass of means of production is, by this same technical progress, cheapened so much to prevent its value, compared with the value of the labor-power employed in this production process, from increasing. This is not so in every single case, but it is usually, and tendentially, so. ↓ In situations in which the value composition serves as a proxy or sign for the technical composition, Marx uses the alternative name “organic composition” for the value composition.

To express this relationship, I call the value-composition of capital, in so far as it is determined by its technical composition and mirrors the changes in the latter, the organic composition of capital.

Um diese auszudrücken, nenne ich die Wertzusammensetzung des Kapitals, insofern sie durch seine technische Zusammensetzung bestimmt wird und deren Änderungen widerspiegelt: die organische Zusammensetzung des Kapitals.

Here is an example from an unrelated field: a student’s grade is influenced by the student’s ability but also by other factors. For this reason, a standard question in student evaluation forms is: “does the grade reflect the student’s ability”? Likewise, Marx asks: does the value composition reflect the technical composition? Only if it does will Marx use the word “organic composition” for it. This terminology shows how much Marx was thinking in terms of signs.

Wherever I refer to the composition of capital, without further qualification, its organic

Wo von der Zusammensetzung des Kapitals kurzweg die Rede ist, ist stets seine organi-

25. General Law of Capitalist Accumulation

composition is always understood.

| sche Zusammensetzung zu verstehen.

Although the name “organic composition” might suggest that it measures how much of the capital is “organic,” i.e., is labor-power, Marx defines it as the unorganic part over the organic part c/v . I.e., a rise in the organic composition means: more constant capital per a given amount of variable capital. It does make sense to have labor in the denominator, because labor is what is moving the machines.

Question 1215 “Value composition” and “organic composition” are two names for the same number, namely, the proportion between constant and variable capital c/v . When does Marx use the word “value composition” and when does he use “organic composition?” Why would one want to introduce two different words for the same number? Are there other examples where Marx uses two different words for the same thing? [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#).

If the same production process is once applied to iron and once to copper, then the technical composition is the same, but since copper contains more labor, the value composition changes. This example is given in *Capital III*, chapter Eight, , which has a parallel discussion of the composition of capital. An increase in the value of iron, or a fall in the wage would likewise increase the value-composition, but in this case Marx would not say that the “organic composition” has increased. The value composition can change by different kinds of processes than those which Marx would call “an increase in the organic composition.”

Exam Question 1217 Define the value composition of capital. What is the main factor determining its magnitude? Which other factors will also influence it? When does Marx use the word “organic composition” (rather than “value composition”) for this number? [2012fa](#), [2009fa](#), [2004fa](#), [1998WI](#), [1997ut](#), [1997sp](#).

⇓ The next paragraph indicates that Marx uses the composition of capital not only as a microeconomic but also a macroeconomic concept:

608:1 The many individual capitals invested in a particular branch of production have compositions which differ from each other to a greater or lesser extent. The average of their individual compositions gives us the composition of the total capital in the branch of production under consideration. Finally, the average of all the average compositions in all branches of production gives us the composition of the total social capital of a country, and it is with this alone that we are concerned here in the final analysis.

640:3 Die zahlreichen in einem bestimmten Produktionszweig angelegten Einzelkapitale haben unter sich mehr oder weniger verschiedene Zusammensetzung. Der Durchschnitt ihrer Einzelzusammensetzungen ergibt uns die Zusammensetzung des Gesamtkapitals dieses Produktionszweigs. Endlich ergibt uns der Gesamtdurchschnitt der Durchschnittszusammensetzungen sämtlicher Produktionszweige die Zusammensetzung des gesellschaftlichen Kapitals eines Landes, und von dieser allein in letzter Instanz ist im folgenden die Rede.

In the French edition [megaII/7]534:4, the discussion of organic composition concludes with the sentence: “After these preliminary remarks, let us come back to capitalist accumulation.”

1.b. [Accumulation of Capital is Increase of the Proletariat]

The portion of section 1 which we are going to read now consists of a long theoretical paragraph [608:2/o](#) followed by a collection of quotes from the literature. The theoretical

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paragraph culminates in the sentence: “Accumulation of capital is, therefore, increase of the proletariat.” This sentence is a literal quote from *Wage-Labor and Capital*, [mecw9]214:3. I will first discuss the short two-sentence derivation of this statement in *Wage-Labor and Capital*, since the general structure of this derivation is similar to that in *Capital*. Here are the relevant three sentences from *Wage-Labor and Capital* with my comments:

1. “Capital can only increase by exchanging itself for labor-power, by calling wage labor to life.” In other words, in order to accumulate, capital must employ wage labor formerly not employed. It needs labor. This dependence of capital on labor may cause an excess demand for labor, higher wages, better working conditions. With the words “by calling wage labor to life” Marx also hints at the reverse dependence: wage labor without capital is not “alive,” i.e., the laborer cannot use her labor-power for herself because she is separated from the means of production.
2. “The labor-power of the wage worker can only exchange itself for capital by increasing capital, by strengthening the power whose slave it is.” After just having read that capital needs labor, the reader would expect that a sentence beginning with “the labor-power” is going to say that labor needs capital. But this is not the content of this second sentence. Instead, Marx *qualifies* the need of capital for labor. Capital will *only then* hire the laborer if the wage is low enough to leave room for profit. Even if labor-power is available, capital may not hire it if the price is too high. Being subordinate to labor is not an option for capital. As long as capital accumulates at all, we can be sure that capital is strengthened by this accumulation, otherwise this accumulation would not take place.
3. Marx’s third sentence draws a somewhat abrupt conclusion from the preceding two sentences which needs elaboration. Marx tacitly uses a fact which we all know, namely, that capital accumulation indeed proceeds apace. From the second sentence follows therefore that the growth of the working-class must be such that it serves the interests of capital. Such an outcome would not be possible if the growth of the working class were independent, exogenous, to capital. This state of affairs can only be realized if the growth of the working-class is governed by capital:

“Hence, increase of capital is increase of the proletariat, that is, of the working class.”

↑ The absence of a clash between capital accumulation and the reproduction of the working class is for Marx a similar kind of evidence which the dog that didn’t bark is for Sherlock Holmes.

The next thing Marx says in *Wage-Labor and Capital* is that this is a *contradictory* identity—capital usurps the growth of labor-power for its own purposes—and not a unity of interests based on mutual dependence.

Question 1219 *The capitalist depends on the worker for profit, and the worker depends on the capitalist for survival. Does this mean that workers and capitalists have the same interests?* [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [1997ut](#), [1997sp](#), [1997WI](#).

Now let us turn to Marx’s argument in *Capital*. We will see that it is an elaboration of the three steps from *Wage-Labor and Capital*. In *Capital*, Marx begins with quantitative growth; only later will he show how this quantitative growth also engenders qualitative changes.

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608:2/o Growth of capital implies growth of its variable constituent, in other words, of the portion invested in labor-power.

641:1/o Wachstum des Kapitals schließt Wachstum seines variablen oder in Arbeitskraft umgesetzten Bestandteils ein.

↑ It is unclear how Marx argues this here. Does he already use the assumption, made in the section heading, that the technical composition is constant? Or does he have a more general reasoning in mind, for instance that the quantitative growth of capital is only desirable for the capitalist if it is accompanied by quantitative growth in profits, which can only be achieved on a continuing basis by the exoansion of absolute surplus-value, i.e., by increasing the size of the working class? See chapter Eleven about this.

↓ A ΔC must contain Δv :

A part of the surplus-value to be transformed into additional capital must always revert into the form of variable capital, or additional labor fund.

Ein Teil des in Zusatzkapital verwandelten Mehrwerts muß stets rückverwandelt werden in variables Kapital oder zuschüssigen Arbeitsfonds.

↑ The growth of the variable capital generates additional demand for labor. ↓ In order to specify this increase quantitatively, assumptions must be made about the composition of capital. Marx begins with the simplest possible assumption:

If we assume that accumulation takes place under unchanged circumstances, so that also the composition of capital remains constant (i.e. any given mass of means of production or constant capital needs the same mass of labor-power as before to set it in motion), then the demand for labor, and the fund for the subsistence of the workers, both clearly increase in the same proportion as the capital. The faster capital grows, the faster the demand for labor will grow.

Unterstellen wir, daß, nebst sonst gleichbleibenden Umständen, die Zusammensetzung des Kapitals unverändert bleibt, d.h. eine bestimmte Masse Produktionsmittel oder konstantes Kapital stets dieselbe Masse Arbeitskraft erheischt, um in Bewegung gesetzt zu werden, so wächst offenbar die Nachfrage nach Arbeit und der Subsistenzfonds der Arbeiter verhältnismäßig mit dem Kapital und um so rascher, je rascher das Kapital wächst.

↓ This can lead to situations in which demand for labor outstrips supply:

Since the capital produces a surplus-value every year, of which one part is added every year to the original capital; since this increment itself grows every year along with the augmentation of the capital already functioning; and since, lastly, under conditions especially liable to stimulate the drive for self-enrichment, such as the opening of new markets, or of new spheres for the outlay of capital resulting from newly developed social requirements, the scale of accumulation may suddenly be extended merely by a change in the proportion in which the surplus-value or the surplus product is divided into capital and revenue—for all these reasons the requirements of accumulating capital may exceed the growth in labor-power or in the number of workers; the de-

Da das Kapital jährlich einen Mehrwert produziert, wovon ein Teil jährlich zum Originalkapital geschlagen wird, da dies Inkrement selbst jährlich wächst mit dem zunehmenden Umfang des bereits in Funktion begriffenen Kapitals und da endlich, unter besonderem Sporn des Bereicherungstrieb, wie z.B. Öffnung neuer Märkte, neuer Sphären der Kapitalanlage infolge neu entwickelter gesellschaftlicher Bedürfnisse usw., die Stufenleiter der Akkumulation plötzlich ausdehnbar ist durch bloß veränderte Teilung des Mehrwerts oder Mehrprodukts in Kapital und Revenue, können die Akkumulationsbedürfnisse des Kapitals das Wachstum der Arbeitskraft oder der Arbeiteranzahl, die Nachfrage nach Arbeitern ihre Zufuhr überflügeln und daher

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mand for workers may outstrip the supply, | die Arbeitslöhne steigen.
and thus wages may rise.

↑ Rate of accumulation based on motivation of the capitalist. Why does capital grow faster than labor? On the one hand, Marx argues here that capital grows exponentially, while labor cannot. But Marx says also that capital can suddenly accelerate its growth by changing the proportion in which surplus-product is converted into new capital. Two things are here notable: first, this is an example for something which Marx will emphasize this later, namely, the impulse comes from capital and not the working class. Secondly, capital can generate this impulse only because it is free to determine the capitalization rate. The freedom to decide the rate of capitalization plays an important role in the background of the entire discussion.

↓ So far, Marx has only said that demand for labor *can* increase above supply, i.e., there is nothing which will prevent such an outcome. Now he goes one step further: if the value composition remains unchanged, demand *must* eventually outstrip supply:

This must indeed ultimately be the case if the conditions assumed above continue to prevail. For since in each year more workers are employed than in the preceding year, sooner or later a point must be reached at which the requirements of accumulation begin to outgrow the customary supply of labor, and a rise of wages therefore takes place.

Dies muß sogar schließlich der Fall sein bei unveränderter Fortdauer obiger Voraussetzung. Da in jedem Jahr mehr Arbeiter beschäftigt werden als im vorhergehenden, so muß früher oder später der Punkt eintreten, wo die Bedürfnisse der Akkumulation anfangen, über die gewöhnliche Zufuhr von Arbeit hinauszuwachsen, wo also Lohnsteigerung eintritt.

Exam Question 1223 Describe some circumstances in which the labor requirements for capital accumulation exceed the growth in available labor. 2002fa, 2000fa, 1999SP, 1997ut, 1997sp, 1997WI.

↑ Marx says here only that demand for labor must *begin* to outgrow labor supply. The French edition [mecw] says that it must lead to a *gradual* rise in wages. ↓ Before showing how this rise will be interrupted, Marx brings evidence that this gradual or incipient rise does indeed take place.

Complaints were to be heard about this in England during the whole of the fifteenth century, and the first half of the eighteenth.

Klage hierüber ertönt in England während des ganzen fünfzehnten und der ersten Hälfte des achtzehnten Jahrhunderts.

↓ Despite rising wages, however, capital continues to accumulate.

The more or less favorable circumstances, in which the wage-laborers support and multiply themselves, do however not alter in any way the fundamental character of capitalist production.

Die mehr oder minder günstigen Umstände, worin sich die Lohnarbeiter erhalten und vermehren, ändern jedoch nichts am Grundcharakter der kapitalistischen Produktion.

Through the ups and downs of wages, the capitalists have never given up their profit motive. ↓ On the contrary, the capitalist system not only persists but even reproduces itself on an extended scale:

Just as simple reproduction continually reproduces the capital relation itself, capitalists on the one side and wage laborers on the other, so does reproduction on an expanded

Wie die einfache Reproduktion fortwährend das Kapitalverhältnis selbst reproduziert, Kapitalisten auf der einen Seite, Lohnarbeiter auf der andren, so reproduziert die Re-

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scale, i.e. accumulation, reproduce the capital relation on an expanded scale, with more capitalists, or bigger capitalists, at one pole, and more wage laborers at the other.

produktion auf erweiterter Stufenleiter oder die Akkumulation des Kapitalverhältniss auf erweiterter Stufenleiter, mehr Kapitalisten oder größere Kapitalisten auf diesem Pol, mehr Lohnarbeiter auf jenem.

↑ This presents a riddle: how can capital reproduce itself on an extended scale in the face of the seemingly inexorable tendencies of the demand for labor to outstrip labor supply just argued earlier in the same paragraph? As in *Wage-Labor and Capital*, the solution of this riddle is that the reproduction of the working class is not an independent process but a subprocess of capital accumulation.

↓ This is only an extension of things said earlier, since also in other respects (other than the reproduction of the working class), the worker is subservient to capital. In the second edition [mecw], Marx prefaces his next long sentence with the phrase: “One has already seen earlier:”

The reproduction of labor-power, which must incessantly be re-incorporated into capital as its means of valorization, which cannot break loose from capital, and whose enslavement to capital is only concealed by the variety of individual capitalists to whom it sells itself, is in fact a moment in the reproduction of capital itself.

Die Reproduktion der Arbeitskraft, die sich dem Kapital unaufhörlich als Verwertungsmittel einverleiben muß, nicht von ihm loskommen kann und deren Hörigkeit zum Kapital nur versteckt wird durch den Wechsel der individuellen Kapitalisten, woran sie sich verkauft, bildet in der Tat ein Moment der Reproduktion des Kapitals selbst.

“*bildet*” should not be translated with “forms” as both

Moore-Aveling and Fowkes did. It is not a matter of form but of

constitutive elements or “moments.”

↑ Just as the individual worker is trapped in the capitalist system and cannot overcome it or get away from it, ↓ so also (Marx implies here) is the reproduction of the entire working class subservient to the accumulation of capital.

Accumulation of capital is therefore multiplication of the proletariat.⁷⁰

Akkumulation des Kapitals ist also Vermehrung des Proletariats.⁷⁰

↑ This last sentence must be read in a subsumptive sense; the “is” in this sentence has the meaning of “entails, encompasses.” In the French edition [mecw], Marx writes: “is at the same time.” Accumulation of capital and growth of the workforce are not two different autonomous processes interacting with each other, but two aspects of one and the same process.

The mechanisms which chain the growth of the working class to that of capital will be discussed starting 613:1/o. But first, Marx brings a collection of quotes in which classical economists testify that were aware of the subservient situation of the working class, and thought it was a good thing.

↓ The footnote to the preceding paragraph can be considered an introduction to this collection of quotes. It brings a reference to the place in Marx’s own *Wage Labor and Capital* which we discussed at the beginning, together with an economic definition of the proletarian as someone who is dependent on capital.

⁷⁰ Karl Marx, ‘Wage Labor and Capital’, op. cit. ‘If the masses are all oppressed equally, the more proletarians a country has, the richer it will be’ (Colins, *L’Économie politique. Source*

⁷⁰ Karl Marx, l.c.—, „Bei gleicher Unterdrückung der Massen ist ein Land um so reicher, je mehr Proletarier es hat.“ (Colins, „L’Économie Politique, Source des Révolutions et des Utopies

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des révolutions et des utopies prétendues socialistes, Paris, 1857, Vol. 3, p. 331). A 'proletarian' is, economically, nothing other than a 'wage-laborer', who produces and valorizes 'capital', and is thrown onto the street as soon as he becomes superfluous to the need for valorization possessed by 'Monsieur Capital', as Pecqueur calls this person. 'The sickly proletarian of the primitive forest' is a schoolboy-like Roscherian phantom. The inhabitant of the primitive forest owns this forest and treats it as his without any further thought, just as an orang-utang does. He is not a proletarian by any means. This would only be the case if the primitive forest exploited him, instead of being exploited by him. As far as his health is concerned, such a man would well bear comparison, not only with the modern proletarian, but also with the syphilitic and scrofulous 'honorable' citizens. However, Herr Wilhelm Roscher probably means his native heath of Lüneburg when he talks about a 'primitive forest'.

prétendues Socialistes“, Paris 1857, t. III, p. 331.) Unter „Proletarier“ ist ökonomisch nichts zu verstehen als der Lohnarbeiter, der „Kapital“ produziert und verwertet und aufs Pflaster geworfen wird, sobald er für die Verwertungsbedürfnisse des „Monsieur Kapital“, wie Pecqueur diese Person nennt, überflüssig ist. „Der kränkliche Proletarier des Urwalds“ ist ein artiges Roscherisches Phantom. Der Urwäldler ist Eigentümer des Urwalds und behandelt den Urwald ganz so ungeniert wie der Orang-Utang, als sein Eigentum. Er ist also nicht Proletarier. Dies wäre nur der Fall, wenn der Urwald ihn, statt er den Urwald exploitierte. Was seinen Gesundheitszustand betrifft, steht solcher wohl den Vergleich aus nicht nur mit dem des modernen Proletariers, sondern auch dem der syphilitischen und skrofulösen „Ehrbarkeit“. Doch versteht Herr Wilhelm Roscher unter Urwald wahrscheinlich die stammverwandte Lüneburger Heide.

↓ The next sentence addresses an error of Classical Economics: Smith and Ricardo thought that *all* accumulation goes into variable capital. This is wrong; part of the accumulated funds must be used to increase constant capital. But Smith and Ricardo sensed correctly that the growth of the working-class is an important element of accumulation.

609:1–610:1 Classical political economy grasped this fact so thoroughly that Adam Smith, Ricardo, etc., as mentioned earlier, wrongly identified accumulation with the consumption of the whole of the capitalized part of the surplus product by productive workers, or with the transformation of the surplus product into additional wage-laborers.

642:1–2 Die klassische Ökonomie begriff diesen Satz so wohl, daß A. Smith, Ricardo usw., wie früher erwähnt, die Akkumulation sogar fälschlich identifizieren mit Konsum des ganzen kapitalisierten Teils des Mehrprodukts durch produktive Arbeiter oder mit seiner Verwandlung in zuschüssige Lohnarbeiter.

↑ This was already discussed in 585:3–586:0. ↓ The next quote shows that also outside the context of accumulation the classical economists understood that capitalist wealth is not only the command over things but most importantly the command over labor:

John Bellers already said this in 1696:

'For if one had a hundred thousand acres of land and as many pounds in money, and as many cattle, without a laborer, what would the rich man be, but a laborer? And as the laborers make men rich, so the more laborers there will be, the more rich men ... the labor of the poor being the mines of the rich.'⁷¹

⁷¹ John Bellers, op. cit., p. 2.

Schon 1696 sagt John Bellers:

„Wenn jemand 100 000 Acres hätte und ebenso viele Pfunde Geld und ebensoviel Vieh, was wäre der reiche Mann ohne den Arbeiter außer selbst ein Arbeiter? Und wie die Arbeiter Leute reich machen, so desto mehr Arbeiter, desto mehr Reiche ... Die Arbeit des Armen ist die Mine des Reichen.“⁷¹

⁷¹ „As the Labourers make men rich, so the more Labourers, there will be the more rich men ... the Labour of the Poor being the Mines of the Rich.“ (John Bellers, l.c., p. 2).

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↑ Being wealthy in our society not just means to own many things, but on top of this it gives you the ability to have others work for you. ↓ Mandeville concludes from this that workers should be kept moderately poor, and ignorant.

So also Bernard de Mandeville at the beginning of the eighteenth century:

‘It would be easier, where property is well secured, to live without money than without poor; for who would do the work? ... As they [the poor] ought to be kept from starving, so they should receive nothing worth saving. If here and there one of the lowest class, by uncommon industry, and pinching his belly, lifts himself above the condition he was brought up in, nobody ought to hinder him; nay, it is undeniably the wisest course for every person in the society, and for every private family to be frugal; but it is the interest of all rich nations, that the greatest part of the poor should almost never be idle, and yet continually spend what they get ... Those that get their living by their daily labor ... have nothing to stir them up to be serviceable but their wants which it is prudence to relieve, but folly to cure. The only thing then that can render the laboring man industrious, is a moderate quantity of money, for as too little will, according as his temper is, either dispirit or make him desperate, so too much will make him insolent and lazy ... From what has been said, it is manifest, that, in a free nation, where slaves are not allowed of, the surest wealth consists in a multitude of laborious poor; for besides that they are the never failing nursery of fleets and armies, without them there could be no enjoyment, and no product of any country could be valuable. To make the society’ (which of course consists of the non-workers) ‘happy and people easier under the meanest circumstances, it is requisite that great numbers of them should be ignorant as well as poor; knowledge both enlarges and multiplies our desires, and the fewer things a man wishes for, the more easily his necessities may be supplied.’⁷²

642:3–643:0 So Bernard de Mandeville im Anfang des 18. Jahrhunderts:

„Wo das Eigentum hinreichend geschützt ist, wäre es leichter, ohne Geld zu leben als ohne Arme, denn—wer würde die Arbeit tun? ... Wie die Arbeiter vor Aushungerung zu bewahren sind, so sollten sie nichts erhalten, was der Ersparung wert ist. Wenn hier und da einer aus der untersten Klasse durch ungewöhnlichen Fleiß und Bauchkneipen sich über die Lage erhebt, worin er aufgewachsen war, so muß ihn keiner daran hindern: ja es ist unleugbar der weiseste Plan für jede Privatperson, für jede Privatfamilie in der Gesellschaft, frugal zu sein; aber es ist das Interesse aller reichen Nationen, daß der größte Teil der Armen nie untätig sei und sie dennoch stets verausgaben, was sie einnehmen ... Diejenigen, die ihr Leben durch ihre tägliche Arbeit gewinnen, haben nichts, was sie anstachelt, dienstlich zu sein außer ihren Bedürfnissen, welche es Klugheit ist zu lindern, aber Nartheit wäre zu kurieren. Das einzige Ding, das den arbeitenden Mann fleißig machen kann, ist ein mäßiger Arbeitslohn. Ein zu geringer macht ihn je nach seinem Temperament kleinmütig oder verzweifelt, ein zu großer insolent und faul ... Aus dem bisher Entwickelten folgt, daß in einer freien Nation, wo Sklaven nicht erlaubt sind, der sicherste Reichtum aus einer Menge arbeitsamer Armen besteht. Außerdem, daß sie die nie versagende Zufuhrquelle für Flotte und Armee, gäbe es ohne sie keinen Genuß und wäre das Produkt keines Landes verwertbar. Um die Gesellschaft’ (die natürlich aus den Nichtarbeitern besteht) „glücklich und das Volk selbst in kümmerlichen Zuständen zufrieden zu machen, ist es nötig, daß die große Majorität sowohl unwissend als arm bleibt. Kenntnis erweitert und vervielfacht unsere Wünsche, und je weniger ein Mann wünscht, desto leichter können seine Bedürfnisse befriedigt werden.“⁷²

↑ Mandeville recommends not to “cure” the wants of the workers but only to “relieve” them, because these wants give them the incentives to work. Interestingly, Mandeville combines this with the call to keep the workers ignorant. ↓ The footnote brings a second Mandeville quote with the same idea, this time not quite as blunt but adorned with the slogans “happiness for the workers and riches for the state.”

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⁷² Bernard de Mandeville, *The Fable of the Bees*, 5th edn, London, 1728, Remarks, pp. 212–13, 328. ‘Temperate living and constant employment is the direct road, for the poor, to rational happiness’ (by which the author means the longest possible working days and the smallest possible amount of the means of subsistence), ‘and to riches and strength for the state’ (namely for the landowners, capitalists, and their political dignitaries and agents) (*An Essay on Trade and Commerce*, London, 1770, p. 54).

⁷² B. de Mandeville, („The Fable of the Bees“, 5th ed., Lond. 1728, Remarks, p. 212, 213, 328.)—„Mäßiges Leben und beständige Arbeit sind für den Armen der Weg zum materiellen Glücke“ (worunter er möglichst langen Arbeitstag und möglichst wenig Lebensmittel versteht) „und zum Reichtum für den Staat“ (nämlich Grundeigentümer, Kapitalisten und ihre politischen Würdeträger und Agenten). („An Essay on Trade and Commerce“, Lond. 1770, p. 54.)

Mandeville lived prior to the Industrial Revolution, and therefore did not experience that capitalism has the ability to create exactly those ideal conditions he was proposing:

610:4–611:2 Mandeville, an honest man with a clear mind, does not yet see that the very mechanism of accumulation increases, along with the amount of capital, also the masses of the ‘laboring poor’, i.e. of wage laborers, who can sell their labor-power only if it becomes a force for increasing the valorization of the growing capital—who are therefore condemned to make their relation of dependence on their own product, as personified in the capitalist, into an eternal relation.

643:1–644:1 Was Mandeville, ein ehrlicher Mann und heller Kopf, noch nicht begreift, ist, daß der Mechanismus des Akkumulationsprozesses selbst mit dem Kapital die Masse der „arbeitsamen Armen“ vermehrt, d.h. der Lohnarbeiter, die ihre Arbeitskraft in wachsende Verwertungskraft des wachsenden Kapitals verwandeln und ebendadurch ihr Abhängigkeitsverhältnis von ihrem eignen, im Kapitalisten personifizierten Produkt verewigen müssen.

↑ The dependence of the worker on the capitalist is his dependence on his own product!
 ↓ Now a quote from Eden who also recommends that the servitude of the laborers should be made as comfortable as possible. This will be the punch line of the Eden quote, but let us first watch the buildup to this punch line:

In reference to this dependence, Sir F. M. Eden remarks, in his *The State of the Poor; or an History of the Laboring Classes in England*:

Mit Bezug auf dies Abhängigkeitsverhältnis bemerkt Sir F. M. Eden in seiner „Lage der Armen, oder Geschichte der arbeitenden Klasse Englands“:

The natural produce of our soil is certainly not fully adequate to our subsistence; we can neither be clothed, lodged nor fed but in consequence of some previous labor. A portion at least of the society must be indefatigably employed ... There are others who, though they “neither toil nor spin”, can yet command the produce of industry, but who owe their exemption from labor solely to civilization and order ... They are peculiarly the creatures of civil institutions,⁷³ which have recognized that individuals may acquire property by various other means besides the exertion of labor ...

„Unsere Zone erfordert Arbeit zur Befriedigung der Bedürfnisse, und deshalb muß wenigstens ein Teil der Gesellschaft unermüdet arbeiten ... Einige, die nicht arbeiten, haben dennoch die Produkte des Fleißes zu ihrer Verfügung. Das verdanken diese Eigentümer aber nur der Zivilisation und Ordnung; sie sind reine Kreaturen der bürgerlichen Institutionen.⁷³ Denn diese haben es anerkannt, daß man die Früchte der Arbeit auch anders als durch Arbeit sich aneignen kann.

While Mandeville said very clearly that the dependence of the working class is economic, Eden attributes the transfer of wealth from workers to nonworkers to the bourgeois insti-

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tutions. Marx does not let this pass in silence; the bourgeois institutions are part of the superstructure. Footnote 73 brings an interesting short defense of the primacy of the economic base, which differs from the usual “nothing would happen if people did not have to eat”:

⁷³ Eden should have asked: who created ‘the civil institutions’? From the standpoint he adopts, that of juridical illusion, he does not regard the law as a product of the material relations of production, but rather the reverse: he sees the relations of production as products of the law. Linguet overthrew Montesquieu’s illusory ‘esprit des lois’ (spirit of the laws) with the one word: ‘The spirit of the laws is property.’

⁷³ Eden hätte fragen sollen, wessen Kreatur sind denn „die bürgerlichen Institutionen“? Vom Standpunkt der juristischen Illusion betrachtet er nicht das Gesetz als Produkt der materiellen Produktionsverhältnisse, sondern umgekehrt die Produktionsverhältnisse als Produkt des Gesetzes. Linguet warf Montesquieu’s illusorischen „Esprit des Lois“ mit dem einen Wort über den Haufen: „L’esprit des lois, c’est la propriété.“

↑ Marx’s argument implied in the question “who created the bourgeois institutions” is: Laws and other “bourgeois institutions” are the conscious creations of individuals. They are a reflection of material production because the individuals who create these laws are usually aware of the general structure of society, even if they do not formulate it as bluntly and honestly as Eden and Mandeville did.

Question 1226 In footnote 4 to 765:1/o Marx asks: “who created the civil institutions?” He clearly has a specific answer in mind. Which answer? Full disclosure: Hans doesn’t know the answer himself. He sees three possibilities:

(a) members of the ruling class.

(b) individuals involved in production, with an intimate knowledge of the specific needs of production.

(c) individuals living in this society who have a general understanding of the structure of society.

There may be other possibilities. [2013fa](#), [2012fa](#), [2010fa](#).

Question 1227 What is the “juridical illusion”? [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007SP](#).

↓ Marx has no quibbles with Eden’s next point: it is not the command over material goods (dead labor) but the command over living labor that distinguishes the rich from the poor.

Persons of independent fortune ... owe their superior advantages by no means to any superior abilities of their own, but almost entirely ... to the industry of others. It is not the possession of land, or of money, but the command of labor which distinguishes the opulent from the laboring part of the community ...

Die Leute von unabhängigem Vermögen verdanken ihr Vermögen fast ganz der Arbeit anderer, nicht ihrer eignen Fähigkeit, die durchaus nicht besser ist als die der andren; es ist nicht der Besitz von Land und Geld, sondern das Kommando über Arbeit (the command of labour), das die Reichen von den Armen unterscheidet ...

Next Eden seems to talk about hegemony. Marx will remark below that this “easy and liberal” treatment of the working class is specific to the extensive phase of accumulation.

This [the scheme approved by Eden] would give the people of property sufficient influence and authority over those who ... work for them; and it would place such laborers, not in an abject or servile condition, but in such a state of easy and liberal dependence as all who

Was dem Armen zusagt, ist nicht eine verworfene oder servile Lage, sondern ein bequemes und liberales Abhängigkeitsverhältnis (a state of easy and liberal dependence), und für die Leute von Eigentum hinreichender Einfluß und Autorität über die, die für sie arbei-

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know human nature, and its history, will allow to be necessary for their own comfort.⁷⁴

⁷⁴ Eden, op. cit., Vol. 1, Bk. I, Ch. 1, pp. 1–2, and Preface, p. xx.

Sir F. M. Eden, it may be remarked in passing, was the only disciple of Adam Smith to have achieved anything of importance during the eighteenth century.⁷⁵

ten ... Ein solches Abhängigkeitsverhältnis ist, wie jeder Kenner der menschlichen Natur weiß, notwendig für den Komfort der Arbeiter selbst.“⁷⁴

⁷⁴ Eden, l.c., v. I, l. I, ch. I, p. 1, 2 und Preface, p. XX.

Sir F. M. Eden, beiläufig bemerkt, ist der einzige Schüler Adam Smiths, der während des achtzehnten Jahrhunderts etwas Bedeutendes geleistet hat.⁷⁵

Question 1228 *Why is it more beneficial for capital to keep the working class in a state of “easy and liberal dependence” than to exert the maximum of surplus-value from them?* 2013fa, 2012fa, 2010fa, 2009fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 1997ut, 1997sp, 1997WI.

Malthus is a counterexample here. According to his theory, there are too many laborers. Marx argues however that Malthus does not belong into the realm of classical thought but was a propagandist of party interests:

⁷⁵ If the reader thinks at this point of Malthus, whose *Essay on Population* appeared in 1798, I would remind him that this work in its first form is nothing more than a schoolboyish, superficial plagiarism of Defoe, Sir James Steuart, Townsend, Franklin, Wallace, etc., declaimed in the manner of a sermon, but not containing a single original proposition of Malthus himself. The great sensation this pamphlet caused was due solely to the fact that it corresponded to the interests of a particular party. The French Revolution had found passionate defenders in the United Kingdom; the ‘principle of population’, slowly worked out in the eighteenth century, and then, in the midst of a great social crisis, proclaimed with drums and trumpets as the infallible antidote to the doctrines of Condorcet and others, was greeted jubilantly by the English oligarchy as the great destroyer of all hankerings after a progressive development of humanity. Malthus, greatly astonished at his success, then set himself to the task of stuffing into the old framework of his book various bits of superficial compiled material, and adding to it new matter; but this new matter was not discovered by Malthus, it was merely annexed by him.

⁷⁵ Sollte der Leser an Malthus erinnern, dessen „Essay on Population“ 1798 erschien, so erinnere ich, daß diese Schrift in ihrer ersten Form nichts als ein schülerhaft oberflächliches und pfäffisch verdekliertes Plagiat aus Defoe, Sir James Steuart, Townsend, Franklin, Wallace usw. ist und nicht einen einzigen selbstgedachten Satz enthält. Das große Aufsehn, das dies Pamphlet erregte, entsprang lediglich Parteiinteressen. Die Französische Revolution hatte im britischen Königreich leidenschaftliche Verteidiger gefunden; das „Populationsprinzip“, langsam im 18. Jahrhundert herausgearbeitet, dann mitten in einer großen sozialen Krisis mit Pauken und Trompeten verkündet als das unfehlbare Gegengift gegen die Lehren von Condorcet u.a., wurde jubelnd begrüßt von der englischen Oligarchie als der große Austilger aller Gelüste nach menschlicher Fortentwicklung. Malthus, über seinen Erfolg hocherstaunt, gab sich dann daran, oberflächlich kompiliertes Material in das alte Schema zu stopfen und neues, aber nicht von Malthus entdecktes, sondern nur annexiertes, zuzufügen.

Next, Marx is asking whether the population theorists practiced what they preached.

^{75 ctd} Let us note incidentally that although Malthus was a parson of the Church of England he had taken the monastic vow of celibacy. For this is one of the conditions of holding a Fellowship in (Protestant) Cambridge University: ‘We

^{75 ctd} —Nebenbei bemerkt. Obgleich Malthus Pfaffe der englischen Hochkirche, hatte er das Mönchsgelübde des Zölibats abgelegt. Dies ist nämlich eine der Bedingungen der fellowship der protestantischen Universität zu Cambridge.

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do not permit the Fellows of the Colleges to be married, but rather as soon as anyone takes a wife, he ceases to be a Fellow of his College'. (Reports of Cambridge University Commission, p. 172). This circumstance favorably distinguishes Malthus from other Protestant parsons, who have flung off the Catholic requirement of the celibacy of the priesthood, and taken 'Be fruitful and multiply' as their special Biblical mission to such an extent that they generally contribute to the increase of population to a really unbecoming extent, whilst at the same time preaching the 'principle of population' to the workers. It is characteristic that the fall of man, as economically travestied, the apple of Adam, the 'urgent appetite', 'the checks which tend to blunt the shafts of Cupid', as Parson Townsend waggishly puts it—it is characteristic that this delicate question was and is monopolized by the representatives of Protestant theology, or rather of the Protestant Church. With the exception of the Venetian monk Ortes, an original and clever writer, most of the population theorists are Protestant clerics. For instance, Bruckner's *Théorie du système animal* (Leyden, 1767), in which the whole of the modern theory of population is exhaustively treated, using ideas furnished by the passing dispute between Quesnay and his pupil, the elder Mirabeau, then Parson Wallace, Parson Townsend, Parson Malthus and his pupil, the arch-Parson Thomas Chalmers, to say nothing of lesser reverend scribblers in this line.

„Daß die Mitglieder der Kollegien verheiratet sind, gestatten wir nicht, sondern sobald jemand eine Frau nimmt, hört er damit auf, Mitglied des Kollegiums zu sein.“ („Reports of Cambridge University Commission“, p. 172.) Dieser Umstand unterscheidet Malthus vorteilhaft von den andren protestantischen Pfaffen, die das katholische Gebot des Priesterzölibats von sich selbst abgeschüttelt und das „Seid fruchtbar und mehret euch“ in solchem Maß als ihre spezifisch biblische Mission vindiziert haben, daß sie überall in wahrhaft unanständigem Grad zur Vermehrung der Bevölkerung beitragen, während sie gleichzeitig den Arbeitern das „Populationsprinzip“ predigen. Es ist charakteristisch, daß der ökonomische travestierte Sündenfall, der Adamsapfel, der „urgent appetite“, „the checks which tend to blunt the shafts of Cupid“, wie Pfaff Townsend munter sagt, daß dieser kitschige Punkt von den Herrn von der protestantischen Theologie oder vielmehr Kirche monopolisiert ward und wird. Mit Ausnahme des venetianischen Mönches Ortes, eines originellen und geistreichen Schriftstellers, sind die meisten Populationslehrer protestantische Pfaffen. So Bruckner: „Théorie du Système animal“, Leyde 1767, worin die ganze moderne Bevölkerungstheorie erschöpft ist und wozu der vorübergehende Zank zwischen Quesnay und seinem Schüler Mirabeau père über dasselbe Thema Ideen lieferte, dann Pfaffe Wallace, Pfaffe Townsend, Pfaffe Malthus und sein Schüler, der Erzpaff Th. Chalmers, von kleineren pfäffischen Skribenten in this line gar nicht zu reden.

Since the protestant priests did not enter economics until the population principle debate, Marx adds a few remarks about the sociology of Economics:

^{75 ctd} Originally, political economy was studied by philosophers such as Hobbes, Locke and Hume; by businessmen and statesmen, like Thomas More, Temple, Sully, De Witt, North, Law, Vanderint, Cantillon and Franklin; and the theoretical aspects especially were studied, and with the greatest success, by medical men like Petty, Barbon Mandeville and Quesnay. Even in the middle of the eighteenth century, the Rev. Mr. Tucker, a notable economist for that time, made his excuses for meddling with Mammon. Later on, and indeed with the entry of the 'principle of population', the hour of the Protestant parsons struck. Petty, who regarded population as the basis of wealth, and was, like Adam Smith, an outspoken enemy of the parsons, said, as if he

^{75 ctd} Ursprünglich ward die politische Ökonomie betrieben von Philosophen, wie Hobbes, Locke, Hume, Geschäfts- und Staatsleuten, wie Thomas Morus, Temple, Sully, de Witt, North, Law, Vanderlint, Cantillon, Franklin, und theoretisch namentlich, und mit dem größten Erfolg, von Medizinern, wie Petty, Barbon, Mandeville, Quesnay. Noch Mitte des 18. Jahrhunderts entschuldigt sich Rev. Mr. Tucker, ein bedeutender Ökonom für seine Zeit, daß er sich mit dem Mammon beschäftigte. Später, und zwar mit dem „Bevölkerungsprinzip“ schlug die Stunde der protestantischen Pfaffen. Als ob er diese Geschäftsverpfuschung geahnt, sagt Petty, der die Population als Basis des Reichtums behandelt und, gleich Adam Smith, abgesagter Pfaf-

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had a presentiment of their bungling interference, 'that Religion best flourishes when the Priests are most mortified, as was before said of the Law, which best flourisheth when lawyers have least to do'. He advises the Protestant priests, therefore, if they, once for all, will not follow the Apostle Paul and 'mortify' themselves by celibacy, 'not to breed more Churchmen than the Benefices, as they now stand shared out, will receive, that is to say, if there be places for about 12,000 in England and Wales, it will not be safe to breed up 24,000 ministers, for then the 12,000 which are unprovided for, will seek ways how to get themselves a livelihood, which they cannot do more easily than by persuading the people that the 12,000 incumbents do poison or starve their souls, and misguide them in their way to Heaven' (Petty, [Pet67, p. 57]).

fenfeind: „Die Religion blüht am besten, wenn die Priester am meisten kasteit werden, wie das Recht am besten, wo die Advokaten verhungern.“ Er rät daher den protestantischen Pfaffen, wenn sie einmal dem Apostel Paulus nicht folgen und sich nicht durch das Zölibat „abtöten“ wollen, „doch ja nicht mehr Pfaffen zu hecken (not to breed more Churchmen) als die vorhandenen Pfründen (benefices) absorbieren können; d.h. wenn es nur 12 000 Pfründen in England und Wales gibt, ist es unweis, 24 000 Pfaffen zu hecken (it will not be safe to breed 24 000 ministers), denn die 12 000 Unversorgten werden stets einen Lebensunterhalt zu gewinnen suchen, und wie könnten sie das leichter tun, als indem sie unter das Volk gehn und es überreden, die 12 000 Pfründner vergifteten die Seelen, und hungerten selbige Seelen aus, und zeigten ihnen den Holzweg zum Himmel?“ (Petty, [Pet67, p. 57].)

Petty noticed the contradiction too of the population-theory and the breeding by the priests. He used a version of population theory (namely the deleterious effects of an overpopulation of priests on religion) to advise the priests not to breed so much. Marx's sociology of science is different. Marx knows that the population theory is wrong, and the points out that its very proponents do not seem to take it seriously for their own practical activities. This is another sign that population theory is only an apology for their own privileged position.

Question 1230 *Why did the Protestant population theoreticians not live by the principles they preached?* 1997ut, 1997WI.

Finally about Adam Smith and atheism:

^{75 ctd} Adam Smith's position with the Protestant priesthood of his time is shown by the following. In *A Letter to A. Smith, LL.D., on the Life, Death, and Philosophy of His Friend, David Hume. By one of the People Called Christians*, 4th edn, Oxford, 1784, Dr. Horne, Bishop of Norwich, reproves Adam Smith, because in a published letter to Mr Strahan, he 'embalmed his friend David' (i.e. Hume), because he told the world how 'Hume amused himself on his deathbed with Lucian and Whist', and because he even had the impudence to write of Hume: 'I have always considered him, both in his life-time and since his death, as approaching as nearly to the idea of a perfectly wise and virtuous man, as, perhaps, the nature of human frailty will permit.' The bishop cries out, in a passion: 'Is it right in you, Sir, to hold up to our view as "perfectly wise and virtuous" the character and conduct of one, who seems to have been possessed with an incurable antipathy to all that is called *Religion*; and who strained every nerve to explode, suppress

^{75 ctd} Adam Smiths Stellung zum protestantischen Pfaffentum seiner Zeit ist durch folgendes charakterisiert. In „A Letter to A. Smith, LL.D., On the Life, Death and Philosophy of his Friend David Hume. By One of the People called Christians“, 4th ed., Oxford 1784, kanzelt Dr. Horne, hochkirchlicher Bischof von Norwich, den A. Smith ab, weil er in einem öffentlichen Sendschreiben an Herrn Strahan seinen „Freund David“ (sc. Hume) „einbalsamierte“, weil er dem Publikum erzähle, wie „Hume auf seinem Sterbebett sich mit Lukian und Whist amüsierte“, und sogar die Frechheit hatte, zu schreiben: „Ich habe Hume stets, sowohl während seines Lebens wie nach seinem Tode so nahe dem Ideal eines vollkommen weisen und tugendhaften Mannes betrachtet, als die Schwäche der menschlichen Natur erlaubt.“ Der Bischof ruft entrüstet: „Ist es recht von Ihnen, mein Herr, uns als vollkommen weise und tugendhaft den Charakter und Lebenswandel eines Menschen zu schildern, der von einer unheilbaren Antipathie besessen war

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and extirpate the spirit of it among men, that its very name, if he could effect it, might no more be had in remembrance?’ (ibid., p. 8). ‘But let not the lovers of truth be discouraged, Atheism cannot be of long continuance’ (p. 17). Adam Smith ‘had the atrocious wickedness to propagate atheism through the land’ (namely by his *Theory of Moral Sentiments*). ‘Upon the whole, Doctor, your meaning is good; but I think you will not succeed this time. You would persuade us, by the example of *David Hume, Esq.*, that atheism is the only cordial for low spirits, and the proper antidote against the fear of death ... You may smile over Babylon in ruins and congratulate the hardened Pharaoh on his overthrow in the Red Sea’ (ibid., pp. 21–2). One orthodox individual among Adam Smith’s college friends wrote after his death: ‘Smith’s well-placed affection for Hume ... hindered him from being a Christian ... When he met with honest men whom he liked ... he would believe almost anything they said. Had he been a friend of the worthy ingenious Horrocks he would have believed that the moon sometimes disappeared in a clear sky without the interposition of a cloud ... He approached to republicanism in his political principles’ (*The Bee*, by James Anderson, 18 vols., Edinburgh, 1791–3, Vol. 3, pp. 166, 165). Parson Thomas Chalmers was inclined to suspect that Adam Smith invented the category of ‘unproductive laborers’ out of pure malice, so that he could put the Protestant parsons in it, in spite of their blessed work in the vineyard of the Lord.

wider alles, was Religion heißt, und der jeden Nerv anspannte, um, so viel an ihm, selbst ihren Namen aus dem Gedächtnis der Menschen zu löschen?’ (l.c. p. 8.) „Aber laßt euch nicht entmutigen, Liebhaber der Wahrheit, der Atheismus ist kurzlebig.“ (p. 17.) Adam Smith „hat die gräßliche Ruchlosigkeit (the atrocious wickedness), den Atheismus durch das Land zu propagandieren“ (nämlich durch seine „Theory of moral sentiments“) „... Wir kennen Eure Schliche, Herr Doktor! Ihr meint’s gut, rechnet aber diesmal ohne den Wirt. Ihr wollt uns durch das Beispiel von David Hume, Esq., weismachen, daß Atheismus der einzige Schnaps (cordial) für ein niedergeschlagenes Gemüt und das einzige Gegengift wider Todesfurcht ist ... Lacht nur über Babylon in Ruinen und beglückwünscht nur den verhärteten Bösewicht Pharaon!“ (l.c. p. 21, 22.) Ein orthodoxer Kopf unter A. Smiths Kollegienbesuchern schreibt nach dessen Tod: „Smiths Freundschaft für Hume verhinderte ihn, ein Christ zu sein ... Er glaubte Hume alles aufs Wort. Wenn Hume ihm gesagt, der Mond sei ein grüner Käse, er hätt’s geglaubt. Er glaubte ihm daher auch, daß es keinen Gott und keine Wunder gebe ... In seinen politischen Prinzipien streifte er an Republikanismus.“ („The Bee“ by James Anderson, 18 vls., Edinb. 1791–1793 vol. 3, p. 166, 165.) Pfaff Th. Chalmers hat A. Smith in Verdacht, daß er aus reiner Malice die Kategorie der „unproduktiven Arbeiter“ eigens für die protestantischen Pfaffen erfand, trotz ihrer gesegneten Arbeit im Weinberg des Herrn.

After this literature review, which had started in 608:2/o, Marx continues his argument:

1.c. [Dependence of Labor on Capital under Equal Organic Composition]

We are at an impasse. If one compares the quantitative growth trajectory of capital with that of the working-class, the conclusion seems inescapable that workers will eventually become scarce and their wages will rise. However experience shows that the capitalist system remains in place and even strengthens its grip over society. Marx has already drawn the conclusion from this that the growth of the working class must be a subprocess of capital accumulation. In order to develop this in more detail, Marx takes a closer look at accumulation. The first thing he says is that the conditions presently under consideration are the most favorable conditions for capital:

613:1/o Under the conditions of accumulation assumed so far, conditions which are the most favorable to the workers, their relation of dependence on capital takes on forms

645/oo Unter den bisher unterstellten, den Arbeitern günstigsten Akkumulationsbedingungen kleidet sich ihr Abhängigkeitsverhältnis vom Kapital in erträgliche oder,

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which are tolerable or, as Eden says, ‘easy and liberal’. Instead of becoming more intensive with the growth of capital, this relation of dependence merely becomes more extensive, i.e. the sphere of capital’s exploitation and domination merely extends with its own dimensions and the number of people subjected to it.

wie Eden sagt, „bequeme und liberale“ Formen. Statt intensiver zu werden mit dem Wachstum des Kapitals, wird es nur extensiver, d.h. die Exploitations- und Herrschaftssphäre des Kapitals dehnt sich nur aus mit seiner eigenen Dimension und der Anzahl seiner Untertanen.

This qualification hints at it that right now we are only talking about quantitative changes; any *qualitative* changes flowing from this will be discussed later.

After this qualification, Marx re-describes the process. He no longer views it as the interaction between two independent factors (capital and working class), but he looks at accumulation of capital and growth of the working-class as two aspects of the same overarching process:

A larger part of the workers’ own surplus product, which is always increasing and is continually being transformed into additional capital, comes back to them in the shape of means of payment, so that they can extend the circle of their enjoyments, make additions to their consumption fund of clothes, furniture, etc., and lay by a small reserve fund of money.

Von ihrem eignen anschwellenden und schwellend in Zusatzkapital verwandelten Mehrprodukt strömt ihnen ein größerer Teil in der Form von Zahlungsmitteln zurück, so daß sie den Kreis ihrer Genüsse erweitern, ihren Konsumtionsfonds von Kleidern, Möbeln usw. besser ausstatten und kleine Reservefonds von Geld bilden können.

This is a quantitative, not a qualitative change in the overall reproduction process of capital:

But this rise in the price of labor, as a consequence of the accumulation of capital, no more abolishes the exploitation and dependence of the wage laborer than do better clothing, food and treatment, and a larger *peculium*, abolish that of the slave. This rise is merely proof that the length and weight of the golden chain, which the wage-laborer has already forged for himself, allow this chain to be loosened somewhat.

So wenig aber bessere Kleidung, Nahrung, Behandlung und ein größeres Peculium das Abhängigkeitsverhältnis und die Exploitation des Sklaven aufheben, so wenig die des Lohnarbeiters. Steigender Preis der Arbeit infolge der Akkumulation des Kapitals besagt in der Tat nur, daß der Umfang und die Wucht der goldnen Kette, die der Lohnarbeiter sich selbst bereits geschmiedet hat, ihre losere Spannung erlauben.

Question 1231 What does Marx use the metaphor of a golden chain for? Why does he say the chain has become longer, and why heavier? [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [1997ut](#), [1997sp](#).

↑ Under this redescription, the reader can see how the reproduction of the working-class is subsumed under the accumulation of capital, ↓ therefore the only thing Marx has to argue is that this is the right way to look at it.

In the controversies around this question, one has generally overlooked that which matters most, namely, that which distinguishes capitalist production from other production. Labor-power is not purchased

In den Kontroversen über diesen Gegenstand hat man meist die Hauptsache übersehen, nämlich die differentia specifica der kapitalistischen Produktion. Arbeitskraft wird hier gekauft, nicht um durch ihren

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under this system for the purpose of satisfying, by its service or through its product, the personal needs of the buyer. The aim of the buyer is the valorization of his capital, the production of commodities which contain more labor than he paid for, whose value therefore contains a portion which costs him nothing and is nevertheless realized through the sale of those commodities.

↑ Making profits is not only the goal of the capitalist ↓ but the necessary outcome incised in the structure of the capitalist system:

The production of surplus-value, or the making of profits, is the absolute law of this mode of production.

↓ Marx has not yet explained how profit-making, the goal of the capitalist, becomes the outcome favored by the structure of the system. A brief explanation follows now:

Labor-power can be sold only to the extent that it preserves and maintains the means of production as capital, reproduces its own value as capital, and provides unpaid labor, the source of additional capital.⁷⁶

↑ This simple reasoning has a powerful prerequisite, which Marx does not stress enough here: the capitalists as a class are free to decide how much they want to accumulate. If no profits are to be made, accumulation ceases. ↓ Footnote 76 cites the literature to this effect.

⁷⁶ 'The limit, however, to the employment of both the operative and the laborer is the same; namely, the possibility of the employer realizing a *profit* on the produce of their industry. If the rate of wages is such as to reduce the master's gains below the average profit of capital, he will cease to employ them, or will only employ them on condition of submission to a reduction of wages' (John Wade, op. cit., p. 241).

↓ From the point of view of the laborers this means: they can sell their labor-power only under conditions which make it necessary for them to sell their labor-power again and again. The conditions of the sale of labor-power, even if they are the most favorable for the worker, always include the necessity of its constant re-sale and provide for the continued extended reproduction of wealth as capital.

This has implications for the wages. Even if wages are comparatively favorable today, the condition of profitability ensures that they cannot be *very* favorable, and that they will never become very favorable in the future. The purpose for which labor-power is bought puts a lid on wages:

Wages, as we have seen, imply by their very

Dienst oder ihr Produkt die persönlichen Bedürfnisse des Käufers zu befriedigen. Sein Zweck ist Verwertung seines Kapitals, Produktion von Waren, die mehr Arbeit enthalten, als er zahlt, also einen Wertteil enthalten, der ihm nichts kostet und dennoch durch den Warenverkauf realisiert wird.

Produktion von Mehrwert oder Plusmachelei ist das absolute Gesetz dieser Produktionsweise.

Nur soweit sie die Produktionsmittel als Kapital erhält, ihren eignen Wert als Kapital reproduziert und in unbezahlter Arbeit eine Quelle von Zuschußkapital liefert, ist die Arbeitskraft verkaufbar.⁷⁶

⁷⁶ Note zur 2. Ausgabe. „Die Grenze jedoch der Beschäftigung von industriellen wie von ländlichen Arbeitern ist dieselbe: nämlich die Möglichkeit für den Unternehmer, einen Profit aus ihrem Arbeitsprodukt herauszuschlagen. Steigt die Rate des Arbeitslohns so hoch, daß der Gewinn des Meisters unter den Durchschnittsprofit fällt, so hört er auf, sie zu beschäftigen, oder beschäftigt sie nur unter der Bedingung, daß sie eine Herabsetzung des Arbeitslohns zulassen.“ (John Wade, l.c., p. 240.)

Die Bedingungen ihres Verkaufs, ob mehr oder minder günstig für den Arbeiter, schließen also die Notwendigkeit ihres steten Wiederverkaufs und die stets erweiterte Reproduktion des Reichtums als Kapital ein.

Der Arbeitslohn, wie man gesehen, bedingt

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nature that the worker must always provide a certain quantity of unpaid labor.

seiner Natur nach stets Lieferung eines bestimmten Quantums unbezahlter Arbeit auf seiten des Arbeiters.

Higher daily or weekly wages do not necessarily mean that the proportion between paid and unpaid labor is more favorable for the worker, and even if it is, the improvement is only quantitative:

In the best of cases, an increase in wages means only a quantitative reduction in the amount of unpaid labor the worker has to supply (not to speak of those cases where a rise of wages is accompanied by a fall in the price of labor).

Ganz abgesehen vom Steigen des Arbeitslohns mit sinkendem Preis der Arbeit usw., besagt seine Zunahme im besten Fall nur quantitative Abnahme der unbezahlten Arbeit, die der Arbeiter leisten muß.

↑ Examples how wages can rise although the price of labor falls are given in the chapter on time wages, . Marx calls the decrease of unpaid labor *only* quantitative because ↓ it can never go to a point where it makes a qualitative difference.

This reduction can never go so far as to threaten the system itself.

Diese Abnahme kann nie bis zum Punkt fortgehn, wo sie das System selbst bedrohen würde.

After having sorted out all the relevant mechanisms and forces, Marx looks now at the *events*, at possible outcomes. He enumerates three scenarios about what might happen when wages rise. The first possibility is that the rise in wages leads to open conflict: presumably, the capitalists refuse to pay the higher wages and force the workes to accept low wages.

Apart from violent conflicts over the rate of wages (and Adam Smith already showed that in such a conflict the master, by and large, remained the master) a rise in the price of labor resulting from accumulation of capital may lead to the following alternatives:

Abgesehen von gewaltsamen Konflikten über die Rate des Arbeitslohns, und Adam Smith hat bereits gezeigt, daß im großen und ganzen in solchem Konflikt der Meister stets Meister bleibt, unterstellt ein aus Akkumulation des Kapitals entspringendes Steigen des Arbeitspreises folgende Alternative.

↓ Neither side of the following alternative allows the worker to truly get ahead:

614:1/o Either the price of labor keeps on rising, because its rise does not interfere with the progress of accumulation. There is nothing remarkable in this, for as Adam Smith says,

647:1–648:1 Entweder fährt der Preis der Arbeit fort zu steigen, weil seine Erhöhung den Fortschritt der Akkumulation nicht stört; es liegt darin nichts Wunderbares, denn, sagt A. Smith,

‘after these’ (profits) ‘are diminished, stock may not only continue to increase, but to increase much faster than before ... A great stock, though with small profits, generally increases faster than a small stock with great profits’ (op. cit., Vol. 1, p. 189).

„selbst bei gesunkenem Profit vermehren sich die Kapitale dennoch; sie wachsen selbst rascher als vorher ... Ein großes Kapital wächst selbst bei kleinerem Profit im allgemeinen rascher als ein kleines Kapital bei großem Profit.“ (l.c. 1, p. 189.)

In this case it is evident that a reduction in the amount of unpaid labor in no way interferes with the extension of the reign of capital.

In diesem Falle ist es augenscheinlich, daß eine Verminderung der unbezahlten Arbeit die Ausdehnung der Kapitalherrschaft keineswegs beeinträchtigt.

↑ These are the phases in the business cycle in which the demand generated by wages leads to economic expansion, or in which high capacity utilization allows high profits even

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if wages are high, etc. It is not uncommon that temporarily both wages and profits rise. ↓ The other alternative is not that the laborer triumphs over capital but that capital accumulation slackens:

Or, the other alternative, accumulation slackens as a result of the rise in the price of labor, because the stimulus of gain is blunted. The rate of accumulation lessens.

—Oder, das ist die andre Seite der Alternative, die Akkumulation erschlaft infolge des steigenden Arbeitspreises, weil der Stachel des Gewinns abstumpft. Die Akkumulation nimmt ab.

Capital does not *have* to accumulate at a pre-set rate at every point in time. It will only accumulate to the extent that accumulation helps its drive for continuous profits. Of course, if accumulation stalls because wages are too high, this is a defeat for capital. But the ability to endure these defeats allows capital to continue the war to its final victory.

But this means that the primary cause of that lessening itself vanishes, i.e. the disproportion between capital and exploitable labor-power. The mechanism of the capitalist production process removes the very obstacles it temporarily creates. The price of labor falls again to a level corresponding with capital's requirements for self-valorization, whether this level is below, the same as, or above that which was normal before the rise of wages took place.

Aber mit ihrer Abnahme verschwindet die Ursache ihrer Abnahme, nämlich die Disproportion zwischen Kapital und exploitable Arbeitskraft. Der Mechanismus des kapitalistischen Produktionsprozesses beseitigt also selbst die Hindernisse, die er vorübergehend schafft. Der Arbeitspreis fällt wieder auf ein den Verwertungsbedürfnissen des Kapitals entsprechendes Niveau, ob dieses nun unter, über oder gleich mit dem Niveau, welches vor Eintritt des Lohnzuwachses als normal galt.

↑ Marx has shown that the capitalist, simply by doing what is rational for them, namely, investing more if the profit rate is high and less if it is low, retain the upper hand in competition with labor. No special strategic behavior towards labor is necessary.

Question 1232 *Does it make sense for the working class to fight for higher wages if the capitalist, for economic reasons, usually maintains the upper hand in such conflicts?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2007fa, 2005fa, 2004fa, 2003fa, 2002fa, 1997ut, 1997sp, 1997WI.

Question 1233 *Does the dependence of the workers on capital decrease when wages are high?* 2013fa, 2011fa, 2010fa, 2009fa, 2008SP, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1999SP, 1998WI, 1997WI.

Next, Marx verifies that the deeper reasons of this favorable automatic outcome are, indeed, the fact that the growth of the working-class depends on the accumulation of capital. It is written against the background of Malthus's population theory, which was so well-known that Marx did not see the need to explain it here. It will be described later, on p. 631:1/o. While Malthus claims that population growth is the independent variable which places a limit on capital accumulation, Marx holds that capital accumulation is the independent variable. Throughout the book, Marx has always stressed that actions come from things and are conditioned by the properties of things. In this framework the question "who is acting" is a relevant one.

↓ Marx still refers to the two sides of the alternative: either capital continues to accumulate despite high wages, or accumulation slows until wages fall. In either case, capital accumulation acts and the growth of the working population reacts:

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We see therefore that in the first case it was not the diminished rate, either of the absolute or of the proportional increase in labor-power or working population, which caused the excess quantity of capital, but rather the converse, the increase in capital made the exploitable labor-power insufficient. In the second case it was not the increased rate, either of the absolute or of the proportional increase in labor-power, or the working population, that made the capital insufficient, but rather the converse; the relative reduction in the amount of capital caused the exploitable labor-power, or rather its price, to be in excess.

↑ One might also say that capital accumulation is the independent and the growth of the working population the dependent variable. Or one might call capital accumulation active and the working population passive. This all amounts to the same thing.

“Or rather its price” in the last sentence above is an important qualification. Through the mechanism presently discussed, capital accumulation does not increase the size of exploitable population directly but it lowers the price of labor-power. In the next section we will see an action of capital which has a more direct effect on the size of the labor-supply itself.

↓ Now Marx explains why it is not apparent that capital is active and the population passive:

It is these absolute movements of the accumulation of capital which manifest themselves as relative movements of the mass of exploitable labor-power, and therefore seem produced by the latter’s own independent movement.

↑ Capital does not seem to be the causal force because the changes in the rate of capital accumulation are invisible. One does not see that the capitalists decide to invest more; that decision is made behind closed board rooms. What one sees is that there is suddenly a shortage in the labor market because demand for labor grows faster than its supply. This is what Marx means by the relative movements of the mass of exploitable labor-power. Since this reaction on the side of the labor market is the first thing one sees, one is tempted to think that the impulse comes from labor, not from capital.

Question 1236 *Explain how the relation between capital and wage labor can be characterized as: “the absolute movements of the accumulation of capital manifest themselves as relative movements of the mass of exploitable labor-power, and therefore seem produced by the latter’s own independent movement.”* 2012fa, 2009fa, 2008SP, 2007SP.

To put it mathematically: the magnitude of accumulation is the independent, not the dependent variable; the magnitude of wages is the dependent, not the independent variable.

Man sieht: Im ersten Fall ist es nicht die Abnahme im absoluten oder proportionellen Wachstum der Arbeitskraft oder Arbeiterbevölkerung, welche das Kapital überschüssig, sondern umgekehrt die Zunahme des Kapitals, welche die exploitable Arbeitskraft unzureichend macht. Im zweiten Fall ist es nicht die Zunahme im absoluten oder proportionellen Wachstum der Arbeitskraft oder der Arbeiterbevölkerung, welche das Kapital unzureichend, sondern umgekehrt die Abnahme des Kapitals, welche die exploitable Arbeitskraft, oder vielmehr ihren Preis, überschüssig macht.

Es sind diese absoluten Bewegungen in der Akkumulation des Kapitals, welche sich als relative Bewegungen in der Masse der exploitablen Arbeitskraft widerspiegeln und daher der eignen Bewegung der letzteren geschuldet scheinen.

Um mathematischen Ausdruck anzuwenden: die Größe der Akkumulation ist die unabhängige Variable, die Lohngröße die abhängige, nicht umgekehrt.

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Question 1237 *Recapitulate the concrete reasoning which leads Marx to the conclusion that the accumulation of capital is the independent, and the wage rate the dependent variable.* 2013fa, 2010fa, 2009fa, 2008fa, 2007SP, 2000fa, 1999SP.

⇓ This is not the only situation where mainstream economics confuses cause and effect. The “Currency School,” i.e., the monetarists of Marx’s time, do it too. They confuse cause and effect in a different economic phenomenon, namely, cyclical fluctuations in price level and the quantity of money.

Thus, when the industrial cycle is in its phase of crisis, general fall in the price of commodities is expressed as a rise in relative value of money, and, in the phase of prosperity, a general rise in the price of commodities is expressed as a fall in the relative value of money. The so-called Currency School conclude from this that with high prices too much money is in circulation, with low prices too little.⁷⁷

⁷⁷ Marx, *Zur Kritik der Politischen Ökonomie*, pp. 165 ff. English edition pp. 182–5.

↑ I.e., the Currency School says that the quantity of money is the cause and the price level the effect, whereas Marx says that the price level is the cause and the quantity of money the effect. ⇓ Just as the quantity of money is not the cause, although it seems to be, so also the number of exploitable laborers is not the cause, although it seems to be.

Their ignorance and complete misunderstanding of the facts are worthily paralleled by the economists, who interpret the above phenomena of accumulation by saying that in one case there are too few, and in the other, too many wage-laborers in existence.

Following up on his result that accumulation is active and the wage passive, Marx re-describes the relationship in such a way that capital is seen as the real agent, an “automatic subject,” as Marx called it in 164:1/o. The mechanism behind the alleged “natural population law” is not natural at all, Marx calls it “law of capitalist production” or “law of capitalist accumulation.”

615:1/o The law of capitalist production which lies at the basis of the supposed ‘natural law of population’ can be reduced simply to this: the relation between capital, accumulation and the rate of wages is nothing other than the relation between the part of the unpaid labor that has been transformed into capital, and the additional paid labor necessary to set in motion this additional capital. It is therefore in no way a relation between two magnitudes which are mutually independent, i.e. between the magnitude of the capital and the numbers of the

So drückt sich in der Krisenphase des industriellen Zyklus der allgemeine Fall der Warenpreise als Steigen des relativen Geldwerts, und in der Prosperitätsphase das allgemeine Steigen der Warenpreise als Fall des relativen Geldwerts aus. Die sog. Currency-Schule schließt daraus, daß bei hohen Preisen zu viel, bei niedrigen zu wenig Geld zirkuliert.

⁷⁷ Vgl. Karl Marx, „Zur Kritik der Politischen Ökonomie“, 154ff.

Ihre Ignoranz und völlige Verkennung der Tatsachen⁷⁷ finden würdige Parallele in den Ökonomen, welche jene Phänomene der Akkumulation dahin deuten, daß das eine Mal zu wenig und das andre Mal zu viel Lohnarbeiter existieren.

648:2/o Das Gesetz der kapitalistischen Produktion, das dem angeblichen „natürlichen Populationsgesetz“ zugrunde liegt, kommt einfach auf dies heraus: Das Verhältnis zwischen Kapital, Akkumulation und Lohnrate ist nichts als das Verhältnis zwischen der unbezahlten, in Kapital verwandelten Arbeit und der zur Bewegung des Zusatzkapitals erforderlichen zuschüssigen Arbeit. Es ist also keineswegs ein Verhältnis zweier voneinander unabhängigen Größen, einerseits der Größe des Kapitals, andererseits der Zahl der Arbeiterbevölke-

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working population; it is rather, at bottom, only the relation between the unpaid and the paid labor of the same working population. If the quantity of unpaid labor supplied by the working class and accumulated by the capitalist class increases so rapidly that its transformation into capital requires an extraordinary addition of paid labor, then wages rise and, all other circumstances remaining equal, the unpaid labor diminishes in proportion. But as soon as this diminution touches the point at which the surplus labor that nourishes capital is no longer supplied in normal quantity, a reaction sets in: a smaller part of revenue is capitalized, accumulation slows down, and the rising movement of wages comes up against an obstacle. The rise of wages is therefore confined within limits that not only leave intact the foundations of the capitalist system, but also secure its reproduction on an increasing scale.

rung, es ist vielmehr in letzter Instanz nur das Verhältnis zwischen der unbezahlten und der bezahlten Arbeit derselben Arbeiterbevölkerung. Wächst die Menge der von der Arbeiterklasse gelieferten und von der Kapitalistenklasse akkumulierten, unbezahlten Arbeit rasch genug, um nur durch einen außergewöhnlichen Zuschuß bezahlter Arbeit sich in Kapital verwandeln zu können, so steigt der Lohn, und alles andere gleichgesetzt, nimmt die unbezahlte Arbeit im Verhältnis ab. Sobald aber diese Abnahme den Punkt berührt, wo die das Kapital ernährende Mehrarbeit nicht mehr in normaler Menge angeboten wird, so tritt eine Reaktion ein: ein geringerer Teil der Revenue wird kapitalisiert, die Akkumulation erlahmt, und die steigende Lohnbewegung empfängt einen Gegenschlag. Die Erhöhung des Arbeitspreises bleibt also eingebannt in Grenzen, die die Grundlagen des kapitalistischen Systems nicht nur unangestastet lassen, sondern auch seine Reproduktion auf wachsender Stufenleiter sichern.

Marx wrote “ein Verhältnis zweier voneinander unabhängigen Größen,” instead of the

grammatically correct “unabhängiger.” He was probably thinking the more colloquial: “ein

Verhältnis von zwei voneinander unabhängigen Größen.”

This explains the “stylized facts” from 608:2/o. At the end, a pun on “natural law.” Malthus calls his law of population a “natural law.”

The law of capitalist accumulation, mystified by the economists into a supposed law of nature in fact expresses the situation that the very nature of accumulation excludes every diminution in the degree of exploitation of labor, every rise in the price of labor, which could seriously imperil the continual reproduction, on an ever larger scale, of the capital relation.

It is clearly a case of fetishism to call a law “natural” although it springs from the specific nature of capitalist production. Next Marx alludes to the underlying fetish-like character of capital.

It cannot be otherwise in a mode of production in which the worker exists to satisfy the need of the existing values for valorization, as opposed to the inverse situation, in which objective wealth is there to satisfy the

Das in ein Naturgesetz mystifizierte Gesetz der kapitalistischen Akkumulation drückt also in der Tat nur aus, daß ihre Natur jede solche Abnahme im Exploitationsgrad der Arbeit oder jede solche Steigerung des Arbeitspreises ausschließt, welche die stetige Reproduktion des Kapitalverhältnisses und seine Reproduktion auf stets erweiterter Stufenleiter ernsthaft gefährden könnte.

Es kann nicht anders sein in einer Produktionsweise, worin der Arbeiter für die Verwertungsbedürfnisse vorhandener Werte, statt umgekehrt der gegenständliche Reichtum für die Entwicklungsbedürfnisse des

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worker's own need for development. Just as man is governed, in religion, by the products of his own brain, so, in capitalist production, he is governed by the products of his own hand.^{77a}

Arbeiters da ist. Wie der Mensch in der Religion vom Machwerk seines eignen Kopfes, so wird er in der kapitalistischen Produktion vom Machwerk seiner eignen Hand beherrscht.^{77a}

That the standard of living of the laborers is subordinated to the needs of capital is an expression of the fetish-like character of capital. "Fetish-like character" no longer means, as in the case of commodities, that the social relations *lack transparency* because they go through things, but that these things now *dominate* the individuals.

Question 1239 *How does the fetish-like character of capital discussed in the Accumulation chapter differ from that of the commodity discussed in chapter One?* 2010fa, 2009fa, 2008SP, 2001fa, 1997WI.

In footnote 77a, a question is asked similar to that which Marx earlier referred to as the "secret" of the fetish-like character of commodities: how does it happen that people become subordinate to their own product?

^{77a} 'If we now return to our first inquiry, where we showed that capital itself is only a product of human labor ... it seems quite incomprehensible that man can have fallen under the domination of capital, his own product, and can be subordinated to it; and as in reality this is indisputably the case, the question involuntarily forces itself on us: How has the worker been able to pass from being the master of capital—as its creator—to being its slave?' (Von Thünen, *Der isolirte Staat*, Part Two, Section Two, Rostock, 1863, pp. 5, 6.) It is to Thünen's credit that he asked this question. His answer is simply childish.

^{77a} „Gehen wir aber nun auf unsere erste Untersuchung zurück, wo nachgewiesen ist ... daß das Kapital selbst nur das Erzeugnis menschlicher Arbeit ist ... so scheint es ganz unbegreiflich, daß der Mensch unter die Herrschaft seines eigenen Produkts—das Kapital—geraten und diesem untergeordnet werden könne; und da dies in der Wirklichkeit doch unleugbar der Fall ist, so drängt sich unwillkürlich die Frage auf: wie hat der Arbeiter aus dem Beherrscher des Kapitals—als Schöpfer desselben—zum Sklaven des Kapitals werden können?“ (Von Thünen, „Der isolirte Staat“, Zweiter Theil, Zweite Abtheilung, Rostock 1863, p. 5, 6.) Es ist das Verdienst Thünens, gefragt zu haben. Seine Antwort ist einfach kindisch.

Question 1241 *What is the right answer to the question: "How has the worker" (and not only the worker but mankind as a whole) "been able to pass from being the master of capital—as its creator—to being its slave?"* 2013fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2001fa.

2. Relative Diminution of the Variable Part of Capital as Accumulation, and the Concentration that Accompanies it, Progresses

This section shows how accumulation leads to a "qualitative change" in the composition of capital (sic in 623:1), i.e., to a rise in the value composition c/v . The following causal chain is presented: (1) Capital accumulation leads to higher technology, and (2) higher technology leads to higher organic composition. Both links are themselves sequences of finer steps.

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To establish link (1), Marx shows that accumulation of capital, concentration of the means of production, and increases in the productive powers of the production process form a self-reinforcing system, a modern word is “autocatalytic.” Link (1 is subdivided into (1a) capital accumulation leads to the concentration of the means of production, and (1b) more concentrated production leads to higher technology, and Marx discusses also the connection that closes the circle, namely that (1c) higher technology furthers capital accumulation. Link (2) is subdivided into (2a) higher technology leads to higher technical composition, and (2b) this higher technical composition is also reflected in a higher value composition. These links are given in the the following order: (2a), (2b), (1b), (1c), (1a).

Section 2 concludes with a few remarks that this change in the composition of capital results in a declining demand for labor. I.e., not only do wages stay low during accumulation, as argued in 1, but in addition, accumulation generates unemployment. A more thorough development of this additional link, that higher organic composition leads to a surplus population of laborers, will be the subject of section 3.

616:1/o According to the economists themselves, it is neither the actual extent of social wealth nor the magnitude of the capital already acquired that leads to a rise of wages, but only the continued growth of accumulation and the speed of that growth (Adam Smith, Book I, chapter 8).

650:1 Nach den Ökonomen selbst ist es weder der vorhandne Umfang des gesellschaftlichen Reichtums noch die Größe des bereits erworbnen Kapitals, die eine Lohnerhöhung herbeiführen, sondern lediglich das fortgesetzte Wachsen der Akkumulation und der Geschwindigkeitsgrad ihres Wachstums. (A. Smith, Buch I, Kap. 8).

If wages were determined by the Malthusian mechanism (best described on p. 631:1/o), then the absolute size of capital, not the speed of its accumulation, should be relevant for wages. The Malthusian economists are therefore inconsistent when they say that speed matters. Marx agrees that speed indeed matters. But the mechanisms described in section 1 are not sufficient to explain the importance of speed. 1 only treated one particular phase of the accumulation process:

So far, we have considered only one particular phase of this process: expansion of capital under a constant technical composition of capital. But the process advances beyond this phase.

Bisher haben wir nur eine besondre Phase dieses Prozesses betrachtet, diejenige, in der der Kapitalzuwachs stattfindet bei gleichbleibender technischer Zusammensetzung des Kapitals. Aber der Prozeß schreitet über diese Phase hinaus.

Accumulation under constant technical composition of capital is only one phase of the process. Once under way, this accumulation generates its own negation.

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↓ The assumption of capitalist accumulation will be relaxed in 619:1/o, where the conditions of the development of the productive forces will be investigated on the broader basis of commodity production.

617:1–2 Once given the general basis of the capitalistic system ...

650:2–3 Die allgemeinen Grundlagen des kapitalistischen Systems einmal gegeben, ...

↓ The rest of the paragraph describes the result which we called step (1).

... a point is regularly reached in the course of accumulation at which the development

... tritt im Verlauf der Akkumulation jedesmal ein Punkt ein, wo die Entwicklung

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of the productivity of social labor becomes the most powerful lever of accumulation.

der Produktivität der gesellschaftlichen Arbeit der mächtigste Hebel der Akkumulation wird.

The English translation is not very clear here because the “*jedesmal*” is left out. The French is a little clearer than the German, it

translates as follows: the development of the productive forces of social labor always intervenes (survient) at a certain

point of accumulation, in order to become from then on its most powerful lever.”

↑ This can be characterized as a dialectical transition from quantitative to qualitative accumulation. In other words, the *ceteris paribus* condition in the preceding section 608:2/o, constant composition of capital, which must eventually lead to rising wages, does not persist but is necessarily overturned. ↓ Increase in capital not only means that more workers are needed, but it also makes possible new and more productive production methods:

‘The same cause’, says Adam Smith, ‘which raises the wages of labor, the increase of stock, tends to increase its productive powers, and to make a smaller quantity of labor produce a greater quantity of work.’

„Dieselbe Ursache“, sagt A. Smith, „die die Löhne erhöht, nämlich die Zunahme des Kapitals, treibt zur Steigerung der produktiven Fähigkeiten der Arbeit und setzt eine kleinere Arbeitsmenge instand, eine größere Menge von Produkten zu erzeugen.“

In the French edition [megaII/7]542:3/o, the next paragraph starts with: “But how does this result come about?” But instead of describing step (1) now in detail, Marx first concentrates on step (2), the link between increased productive powers of labor and the value composition. As indicated earlier, this is broken into two halves, first (2a), from productive powers of labor to *technical* composition:

Term Paper Topic 1243 Compare the accumulation chapter in the French with that in the German edition.

617:3 Apart from natural conditions, such as the fertility of the soil etc., and the skill of independent and isolated producers (which has more of a bearing on the quality than the quantity of the products), the social degree of productivity of labor expresses itself in the relative extent of the means of production that one worker, during a given time, with the same intensity of exertion of his or her labor-power, turns into products.

650:4/o Abgesehen von Naturbedingungen, wie Fruchtbarkeit des Bodens usw., und vom Geschick unabhängiger und isoliert arbeitender Produzenten, das sich jedoch mehr qualitativ in der Güte als quantitativ in der Masse des Machwerks bewährt, drückt sich der gesellschaftliche Produktivgrad der Arbeit aus im relativen Größenumfang der Produktionsmittel, welche ein Arbeiter, während gegebener Zeit, mit derselben Anspannung von Arbeitskraft, in Produkt verwandelt.

Marx distinguishes three aspects of the productivity of labor: (1) natural conditions, (2) the skills of the workers, and (3) an additional contribution from mechanization, division of labor, and other co-operative aspects of production. The degree of evolution of this third aspect, which Marx had already introduced in , expresses itself in the technical composition.

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I am interpreting *der gesellschaftliche Produktivgrad der Arbeit* to mean the level of the social productive powers of labor which, as the cooperation chapter clarified, is a productive power of social labor. The French edition

supports this, it says in [megaII/7]544:1: “le développement des puissances productives du travail social.” Fowkes’s translation has the same connotation. But the Moore-Aveling translation does

not; they write “the degree of productivity of labor, in a given society,” i.e., they mean the average of the individual productivities and not a social force separate from individual skills.

An *expression* of some invisible process (here: productivity growth) is an observable series of events which accompanies that process and which can be taken as an indicator that this invisible process is taking place. Here, the observable surface phenomena are the rise in the technical composition. They rise whenever the productive powers of labor increase. The next sentence states this once more in simple terms:

The mass of means of production with which the laborer operates increases with the productivity of his labor.

Die Masse der Produktionsmittel, womit er funktioniert, wächst mit der Produktivität seiner Arbeit.

By saying that something is an expression, we do not claim that it has to be one specific causal connection, i.e., expressions do not always have to be effects or conditions or causes. In some cases they are one, in other cases the other. In the present case the connection is two-fold; rising technical composition is both effect and condition of the increasing productivity:

The means of production play a double role here. The increase of some is a consequence and that of others a condition of the increasing productivity of labor. For example, with division of labor (under manual manufacture) and the application of machinery, more raw material is worked up in the same time, and therefore a greater mass of raw material and auxiliary substances enters into the labor process. This is a consequence of the increasing productivity of labor. On the other hand, the mass of machinery, beasts of burden, mineral fertilizers, drain pipes, etc. is a condition of the increasing productivity of labor. The means of production concentrated in buildings, gigantic furnaces, means of transport, etc. are conditions as well.

Diese Produktionsmittel spielen dabei eine doppelte Rolle. Das Wachstum der einen ist Folge, das der andren Bedingung der wachsenden Produktivität der Arbeit. Z.B. mit der manufakturmäßigen Teilung der Arbeit und der Anwendung von Maschinerie wird in derselben Zeit mehr Rohmaterial verarbeitet, tritt also größere Masse von Rohmaterial und Hilfsstoffen in den Arbeitsprozeß ein. Das ist die Folge der wachsenden Produktivität der Arbeit. Andererseits ist die Masse der angewandten Maschinerie, Arbeitsviehs, mineralischen Düngers, Drainierungsröhren usw. Bedingung der wachsenden Produktivität der Arbeit. Ebenso die Masse der in Baulichkeiten, Riesenöfen, Transportmitteln usw. konzentrierten Produktionsmittel.

The next sentence can be considered an explanation of the terminology “expresses itself”: But whether condition or consequence, the growing extent of the means of production, as compared with the labor-power incorporated into them, is an expression of the growing productivity of labor.

Ob aber Bedingung oder Folge, der wachsende Größenumfang der Produktionsmittel im Vergleich zu der ihnen einverleibten Arbeitskraft drückt die wachsende Produktivität der Arbeit aus.

Question 1244 In 773:1, Marx discusses an empirical phenomenon in which technical progress “expresses” itself. Which phenomenon is that? Why does Marx speak here of an expression? 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2003fa, 2002fa, 2001fa, 2000fa, 1999SP.

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↓ The next sentence contains at its beginning a “therefore,” in German *also*, which is a weak version of “therefore” that might also be translated as “thus.” I.e., Marx makes an additional step here.

The increase of the latter appears, therefore, in the diminution of the mass of labor in proportion to the mass of means of production moved by it, or in the diminution of the subjective factor of the labor process as compared with the objective factors.

Die Zunahme der letzteren erscheint also in der Abnahme der Arbeitsmasse verhältnismäßig zu der von ihr bewegten Masse von Produktionsmitteln oder in der Größenabnahme des subjektiven Faktors des Arbeitsprozesses, verglichen mit seinen objektiven Faktoren.

Here Marx no longer speaks of “expression” but of “form of appearance.” While an expression of a process going on in the core is part of channel (1) defined earlier (i.e., it is information which this process sends about itself to the surface), forms of appearance are part of channel (2): they are surface relations which direct and focus individual activities in such a way that they have an impact on the core. The problem with this appearance is that it is an *inverted* appearance: the *increase* of productivity in the core is, on the surface, experienced as a *decrease* of labor relative to the mass of means of production. In the French edition [megaII/7]544:1, Marx adds the following sentence here:

544:1 To the extent therefore that the growth of capital makes labor more productive, it diminishes the demand for labor proportionally to its own magnitude.

544:1 A mesure donc que l’accroissement du capital rend le travail plus productif, il en diminue la demande proportionnellement à sa propre grandeur.

↑ I.e., labor, which just has become better, is demanded less. The reaction on the surface to increasing productivity is therefore perverse: Instead of providing more wealth for all, higher productivity leads to unemployment and lower wages, more misery for the working class.

In the next two paragraphs, Marx discusses step (2b), from technical composition to value composition. He first gives an example of increasing technical composition:

617:4/o This change in the technical composition of capital, this growth in the mass of means of production, as compared with the mass of labor-power that gives life to them, is reflected in its value-composition, since the constant constituent of capital increases at the expense of its variable constituent. There may be, for example, originally 50 per cent of the capital laid out in means of production, and 50 per cent in labor-power; later on, with the development of the productivity of labor, 80 per cent may be laid out in means of production, 20 per cent in labor-power and so on.

651:1 Diese Veränderung in der technischen Zusammensetzung des Kapitals, das Wachstum in der Masse der Produktionsmittel, verglichen mit der Masse der sie belebenden Arbeitskraft, spiegelt sich wider in seiner Wertzusammensetzung, in der Zunahme des konstanten Bestandteils des Kapitalwerts auf Kosten seines variablen Bestandteils. Es werden z.B. von einem Kapital, prozentweis berechnet, ursprünglich je 50% in Produktionsmitteln und je 50% in Arbeitskraft ausgelegt, später, mit der Entwicklung des Produktivgrads der Arbeit, je 80% in Produktionsmitteln und je 20% in Arbeitskraft usw.

There is no mathematical necessity for the increased technical composition to lead to an increased value composition, since higher technology also cheapens the means of production, which counteracts the increase in their mass. However it is a plausible hypothesis that labor can only be saved by increasing some other input into the production process. Rising

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technical composition means that machines have to be increased; rising value composition can perhaps be justified by the idea that the extent of co-operation has to be increased: one needs an increasing amount of labor elsewhere in order to assist a decrease here.

But even if something is very plausible, it is prudent to check it against the facts, and this is what Marx does next. He cannot bring direct data about value composition (which were unavailable at his time), but refers to price data.

This law of the progressive growth of the constant part of capital in comparison with the variable part is confirmed at every step (as already said in the earlier development) by the comparative analysis of the prices of commodities, whether we compare different economic epochs or different nations in the same epoch. The relative magnitude of the part of the price which represents the value of the means of production, or the constant part of the capital, is in direct proportion to the progress of accumulation, whereas the relative magnitude of the other part of the price, which represents the variable part of the capital, or the payment made for labor, is in inverse proportion to the progress of accumulation.

Dies Gesetz des steigenden Wachstums des konstanten Kapitalteils im Verhältnis zum variablen wird auf jedem Schritt bestätigt (wie schon oben entwickelt) durch die vergleichende Analyse der Warenpreise, gleichviel ob wir verschiedene ökonomische Epochen bei einer einzigen Nation vergleichen oder verschiedene Nationen in derselben Epoche. Die relative Größe des Preiselements, welches nur den Wert der verzehrten Produktionsmittel oder den konstanten Kapitalteil vertritt, wird in direktem, die relative Größe des andern, die Arbeit bezahlenden oder den variablen Kapitalteil vertretenden Preiselements, wird im allgemeinen in umgekehrtem Verhältnis stehn zum Fortschritt der Akkumulation.

↑ Prices of constant capital in relation to overall prices were already discussed in the machinery chapter, p. 393:2. And the chapter about National Differences of Wages, 559:3, says that the wage relative to the value of the product, and therefore also the piece wage, is lower in countries with higher development.

↓ But the increase in organic composition is by far not as great as the increase in technical composition:

618:1 However, this diminution in the variable part of capital as compared with the constant part, or, in other words, this change in the composition of the value of the capital, gives only an approximate indication of the change in the composition of its material constituents. The value of the capital employed today in spinning is 7/8 constant and 1/8 variable, while at the beginning of the eighteenth century it was 1/2 constant 1/2 variable. Yet, in contrast to this, the mass of raw material, instruments of labor, etc. that a certain quantity of spinning labor consumes productively today is many hundred times greater than at the beginning of the eighteenth century. The reason is simple: with the increasing productivity of labor, the mass of the means of production consumed by labor increases, but

651:2/o Die Abnahme des variablen Kapitalteils gegenüber dem konstanten oder die veränderte Zusammensetzung des Kapitalwerts zeigt jedoch nur annähernd den Wechsel in der Zusammensetzung seiner stofflichen Bestandteile an. Wenn z.B. heute der in der Spinnerei angelegte Kapitalwert zu 7/8 konstant und 1/8 variabel ist, während er Anfang des 18. Jahrhunderts 1/2 konstant und 1/2 variabel war, so ist dagegen die Masse von Rohstoff, Arbeitsmitteln usw., die ein bestimmtes Quantum Spinnarbeit heute produktiv konsumiert, vielhundertmal größer als im Anfang des 18. Jahrhunderts. Der Grund ist einfach der, daß mit der wachsenden Produktivität der Arbeit nicht nur der Umfang der von ihr vernutzten Produktionsmittel steigt, sondern deren Wert, verglichen mit ihrem Umfang, sinkt.

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their value in comparison with their mass diminishes. Their value therefore rises absolutely, but not in proportion to the increase in their mass. The difference between constant and variable capital increases therefore much less than the difference between the mass of the means of production into which the constant capital, and the mass of the labor-power into which the variable capital, is converted. The former difference increases with the latter, but in a smaller degree.

Ihr Wert steigt also absolut, aber nicht proportionell mit ihrem Umfang. Das Wachstum der Differenz zwischen konstantem und variablem Kapital ist daher viel kleiner als das der Differenz zwischen der Masse der Produktionsmittel, worin das konstante, und der Masse Arbeitskraft, worin das variable Kapital umgesetzt wird. Die erstere Differenz nimmt zu mit der letzteren, aber in geringerem Grad.

Question 1245 *Often it has been argued that yes, technical composition increases, but productive powers of labor increase so fast that the increased machinery and materials represent less labor than before, i.e., the organic composition decreases. Was this a possibility which Marx had overlooked?* [2012fa](#), [2011fa](#), [2009fa](#), [2003fa](#), [2001fa](#), [1998WI](#).

At the end of this discussion, Marx remarks: Although the proportion of variable capital declines, its absolute amount may still rise:

618:2/o To avoid misunderstandings: if the progress of accumulation lessens the relative magnitude of the variable part of capital, this by no means excludes the possibility of a rise in its absolute magnitude. Suppose that a capital-value is divided at first into 50 per cent constant and 50 per cent variable capital, and later into 80 per cent constant and 20 per cent variable capital. If, in the meantime, the original capital, say £6,000, has increased to £18,000, its variable constituent has also increased, in fact by 20 per cent. It was £3,000, it is now £3,600. But whereas formerly an increase of capital by 20 per cent would have sufficed to raise the demand for labor by 20 per cent, now the original capital needs to be tripled to secure an increase of 20 per cent in the demand for labor.

652:1 Übrigens, wenn der Fortschritt der Akkumulation die relative Größe des variablen Kapitaleils vermindert, schließt er damit die Steigerung ihrer absoluten Größe keineswegs aus. Gesetzt, ein Kapitalwert spalte sich anfangs in 50% konstantes und 50% variables Kapital, später in 80% konstantes und 20% variables. Ist inzwischen das ursprüngliche Kapital, sage 6000 Pfd. St., gewachsen auf 18 000 Pfd.St., so ist sein variabler Bestandteil auch um 1/5 gewachsen. Er war 3000 Pfd.St., er beträgt jetzt 3600 Pfd.St. Wo aber früher ein Kapitalzuwachs von 20% genügt hätte, die Nachfrage nach Arbeit um 20% zu steigern, erfordert das jetzt Verdreifachung des ursprünglichen Kapitals.

This paragraph starts in German with “*übrigens*” (by the way), in French with “*enfin, pour eviter des*

erreurs.” This indicates that it is a mere side remark at the end of the discussion. My translation

followed the French.

2.b. [Accumulation, Concentration, and Productivity]

In order to show step (1), that accumulation leads to higher productive powers of labor, Marx explores the general interactions between accumulation of capital, concentration of means of production, and productivity of labor, means of production, and nature.

[From Commodity Production to Capitalism]

↓ Marx begins with a brief summary of his earlier analysis of the development of the social productive powers of labor in chapters Thirteen to Fifteen, from simple co-operation to division of labor to machinery:

This is [megaII/5]502:1/o in the First edition. In the first sentence, “*Abschnitt*” was originally “*Kapitel*,” no other changes in the passage given here.

619:1/o We showed in Part IV how the development of the social productive powers of labor presupposes co-operation on a large scale. Only on this basis can the division and combination of labor be organized, can the means of production be economized by large scale concentration, can instruments of labor (such as systems of machinery) be developed which, by their technical nature, can only be used in common, can gigantic natural forces be pressed into the service of production, and can the transformation be carried out which turns the production process into a process of the technological application of scientific knowledge.

652:2/o Im vierten Abschnitt wurde gezeigt, wie die Entwicklung der gesellschaftlichen Produktivkraft der Arbeit Kooperation auf großer Stufenleiter voraussetzt, wie nur unter dieser Voraussetzung Teilung und Kombination der Arbeit organisiert, Produktionsmittel durch massenhafte Konzentration ökonomisiert, schon stofflich nur gemeinsam anwendbare Arbeitsmittel, z.B. System der Maschinerie usw., ins Leben gerufen, ungeheure Naturkräfte in den Dienst der Produktion gepreßt und die Verwandlung des Produktionsprozesses in technologische Anwendung der Wissenschaft vollzogen werden können.

↑ Large scale co-operative production is a presupposition for the development of the social productive powers of labor. ↓ Simple commodity production, however, prevents such co-operation. Capitalism is necessary to reconcile commodity production with large-scale co-operative production:

When the prevailing system is the production of commodities, i.e., the means of production are the property of private persons, and the artisan therefore either produces in isolation and independently for the market, or sells his labor-power on the market because he lacks the means to produce independently, the above-mentioned presupposition, namely co-operation on a large scale, can come about only through the increase of individual capitals, only to the extent that the social means of production and subsistence are transformed into the private property of capitalists. The soil of commodity production can carry production on a large-scale only in capitalist form.

Auf Grundlage der Warenproduktion, wo die Produktionsmittel Eigentum von Privatpersonen sind, wo der Handarbeiter daher entweder isoliert und selbständig Waren produziert oder seine Arbeitskraft als Ware verkauft, weil ihm die Mittel zum Selbstbetrieb fehlen, realisiert sich jene Voraussetzung nur durch das Wachstum der individuellen Kapitale oder im Maße, worin die gesellschaftlichen Produktions- und Lebensmittel in das Privateigentum von Kapitalisten verwandelt werden. Der Boden der Warenproduktion kann die Produktion auf großer Stufenleiter nur in kapitalistischer Form tragen.

↑ This last sentence repeats something Marx had already remarked in : if the starting point is commodity production, then co-operation can only come about in capitalist form.

Question 1247 *Why can the soil of commodity production carry production on a large-scale only in capitalist form, as Marx says in 775:1/o? (Also define better the “soil” which commodity production provides for the growth of large-scale production.)* 2013fa, 2012fa,

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2010fa, 2009fa, 2008fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 2000fa, 1999SP, 1998WI.

[Productivity and Accumulation Reinforcing each other]

Capitalism is therefore necessary. Assuming commodity production, co-operative production cannot come about without the accumulation of capital. ↓ Some kind of accumulation, which is not necessarily a capitalist accumulation, must therefore come first. I will call this step in the argument (1c.1)

A certain accumulation of capital in the hands of individual producers is therefore a pre-condition for the specifically capitalist mode of production. We had therefore to presuppose this when dealing with the transition from handicrafts to capitalist industry. It may be called original accumulation, because it is the historical basis, instead of the historical result, of the specifically capitalist production. How it itself comes about we need not investigate as yet. Enough, it constitutes the starting-point.

Eine gewisse Akkumulation von Kapital in den Händen individueller Warenproduzenten bildet daher die Voraussetzung der spezifisch kapitalistischen Produktionsweise. Wir mußten sie deshalb unterstellen bei dem Übergang aus dem Handwerk in den kapitalistischen Betrieb. Sie mag die ursprüngliche Akkumulation heißen, weil sie statt historisches Resultat historische Grundlage der spezifisch kapitalistischen Produktion ist. Wie sie selbst entspringt, brauchen wir hier noch nicht zu untersuchen. Genug, sie bildet den Ausgangspunkt.

↑ This same argument is repeated at the beginning of chapter Twenty-Six, 704:1.

↓ Next, Marx argues that capitalism is not only necessary, it is also sufficient, it is strong enough to bring about the fundamental changes in the mode of production. Under capitalism, the link between accumulation and productive powers of labor is not a one-way street. There is also a reaction accelerating accumulation: higher productive powers lead to faster accumulation.

(1c.2) The next two sentences develop the other side, that, once capitalism has been established through this process of original accumulation, higher productive powers of labor lead to increases in surplus-value and therefore accelerate accumulation.

In the next sentence, the First edition, still 502:1/o, does not have the word “*gesteigerten*.” But all methods for raising the social productive powers of labor that grow up on this basis are at the same time methods for the increased production of surplus-value or surplus-product, this surplus-product being the material for accumulation. They are, therefore, also methods for the production of capital by capital, or methods for its accelerated accumulation.

Aber alle Methoden zur Steigerung der gesellschaftlichen Produktivkraft der Arbeit, die auf dieser Grundlage erwachsen, sind zugleich Methoden der gesteigerten Produktion des Mehrwerts oder Mehrprodukts, welches seinerseits das Bildungselement der Akkumulation. Sie sind also zugleich Methoden der Produktion von Kapital durch Kapital oder Methoden seiner beschleunigten Akkumulation.

↑ Marx’s use of the word “accelerated” is important, he seems to have had a self-catalyzing process in mind. This is the first time Marx uses this word in this chapter, but after this he is going to use it 15 more times. ↓ (1c.3) This accumulation, in turn, accelerates technical progress.

The continual re-conversion of surplus-value into capital now appears in the shape

Die kontinuierliche Rückverwandlung von Mehrwert in Kapital stellt sich dar als wach-

2. Relative Diminution of Variable Capital

of the increasing magnitude of the capital that enters into the production process. This is in turn the basis of an extended scale of production, of the methods for raising the productive powers of labor that accompany it, and of an accelerated production of surplus-value.

The next two sentences put steps (1c.1), (1c.2), and (1c.3) together, to get an accelerated development of both accumulation and technical progress:

While, therefore, a certain degree of accumulation of capital appears as a precondition for the specifically capitalist mode of production, the latter, in reaction, causes an accelerated accumulation of capital. With the accumulation of capital, therefore, the specifically capitalist mode of production develops, and, with the capitalist mode of production, the accumulation of capital.

sende Größe des in den Produktionsprozeß eingehenden Kapitals. Diese wird ihrerseits Grundlage einer erweiterten Stufenleiter der Produktion, der sie begleitenden Methoden zur Steigerung der Produktivkraft der Arbeit und beschleunigter Produktion von Mehrwert.

Wenn also ein gewisser Grad der Kapitalakkumulation als Bedingung der spezifisch kapitalistischen Produktionsweise erscheint, verursacht die letztere rückschlagend eine beschleunigte Akkumulation des Kapitals. Mit der Akkumulation des Kapitals entwickelt sich daher die spezifisch kapitalistische Produktionsweise und mit der spezifisch kapitalistischen Produktionsweise die Akkumulation des Kapitals.

Question 1249 *Accumulation increases productive powers of labor and higher productive powers of labor increase accumulation. One might think that accumulation of capital and the productive powers of labor go together really well—or is there a hair in the soup, i.e., are there ways in which technical progress also obstructs capital accumulation?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP, 1997WI.

⇓ Finally, Marx combines this with step (2) which was argued earlier.

These two economic factors bring about, in the compound ratio of the impulses they give to each other, that change in the technical composition of capital by which the variable component becomes smaller and smaller as compared with the constant component.

Diese beiden ökonomischen Faktoren erzeugen, nach dem zusammengesetzten Verhältnis des Anstoßes, den sie sich gegenseitig erteilen, den Wechsel in der technischen Zusammensetzung des Kapitals, durch welchen der variable Bestandteil immer kleiner und kleiner wird, verglichen mit dem konstanten.

↑ This last paragraph was not in the First edition.

[Repulsion and Attraction of Individual Capitals]

There is still one step missing in the argument, namely a precise reasoning of link (1a), from accumulation to mass production. Technical progress is developed in individual firms, and larger-scale co-operative production can only take place in larger firms. Accumulation is the reproduction of the capital relation on an extended scale, i.e., the reconversion of surplus-value into capital. The question now is whether and how this accumulation leads to bigger firms which concentrate means of production in one hand. Purely mathematically, growth of capital can take the form of growth of individual firms, the birth of new firms, or both. In the discussion of the laws of capital in general, which is the level of abstraction of most

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of *Capital I*, the question of firm size is not asked. But for the problematic at hand we have to step down to the level of individual firms, since establishment size matters for technical progress. This is an interesting subject area, the process of individuation is presently an acute area of inquiry in biology. Right at the beginning of his look at accumulation at the level of individual capitals Marx states the result of this inquiry: accumulation means indeed a greater concentration of means of production in the hands of individual capitalists:

This is 503:1/o in the First edition:

620:1/o Every individual capital is a larger or smaller concentration of means of production, with a corresponding command over a larger or smaller army of workers.

653:1/o Jedes individuelle Kapital ist eine größere oder kleinere Konzentration von Produktionsmitteln mit entsprechendem Kommando über eine größere oder kleinere Arbeiterarmee.

↑ Marx uses the word “concentration” here for the concentration of more and more means of production and labor in one establishment. ↓ Since every past accumulation furthers new accumulation, accumulation not only increases the overall amount of wealth functioning as capital but also leads to bigger firms in the process:

Every accumulation becomes the means of new accumulation. With the increasing mass of wealth which functions as capital, accumulation increases the concentration of that wealth in the hands of individual capitalists, and thereby widens the basis of production on a large scale and extends the specifically capitalist methods of production.

Jede Akkumulation wird das Mittel neuer Akkumulation. Sie erweitert mit der vermehrten Masse des als Kapital funktionierenden Reichtums seine Konzentration in den Händen individueller Kapitalisten, daher die Grundlage der Produktion auf großer Stufenleiter und der spezifisch kapitalistischen Produktionsmethoden.

↑ Confusingly, Marx recycles the term “concentration,” which he originally used for the *concentration of means of production* under a single command, and uses the term *concentration of wealth* for the growth of individual capitals due to the reinvestment of their own surplus-value. “Concentration” is henceforth used with two different meanings: concentration of physical means of production, and concentration of wealth or capital. It would be worth while to tag these words with superscripts to distinguish between the two meanings. In later editions, some of the uses of “concentration” for “concentration of capital” have been replaced by “centralization,” so that the second meaning of “concentration” does not mean any concentration but only concentration by retained earnings.

Note the difference between accumulation of capital and the accumulation of animal populations which mainly takes the form of birth of new animals. Of course it is not a surprise that capital grows by the growth of already existing capitals rather than by the birth of new capitals. The normal course of events implied by the private ownership of capital is that the existing individual capitals invest their profits into themselves, therefore each capital grows at the same growth rate as the total capital.

The growth of the social capital is accomplished through the growth of many individual capitals. All other circumstances remaining the same, the individual capitals grow, and with their growth the concentration of the means of production increases, in the proportion in which they form aliquot

Das Wachstum des gesellschaftlichen Kapitals vollzieht sich im Wachstum vieler individuellen Kapitale. Alle andren Umstände als gleichbleibend vorausgesetzt, wachsen die individuellen Kapitale, und mit ihnen die Konzentration der Produktionsmittel, im Verhältnis, worin sie aliquote Teil-

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parts of the total social capital.

le des gesellschaftlichen Gesamtkapitals bilden.

↑ The First Edition, 503:1/o, has a slightly different formulation which I like better: “*Alle andren Umstände als gleichbleibend vorausgesetzt, wächst jedes dieser individuellen Kapitale, und die in ihm gegebne Konzentration der Produktionsmittel, im Verhältnis, worin es einen aliquoten Teil des gesellschaftlichen Gesamtkapitals bildet.*”

I.e., capital which represents 1/20 of total capital will grow 5 times as much as capital which represents 1/100 of total capital. A simpler way of saying this would be: the proportional growth *rate* of individual capitals is the same as that of the total capital.

↓ This concentration is thwarted (sic in 620:1/o) by the separation of new capitals from the old ones or formation of new capitals through inheritance etc. This repulsion of individual capitals is the negation of concentration.

At the same time offshoots split off from the original capitals and start to function as new and independent capitals. Apart from other causes, the division of property within capitalist families plays a great part in this. With the accumulation of capital, therefore, the number of capitalists grows to a greater or lesser extent.

Zugleich reißen sich Ableger von den Originalkapitalen los und funktionieren als neue selbständige Kapitale. Eine große Rolle spielt dabei unter anderm die Teilung des Vermögens in Kapitalistenfamilien. Mit der Akkumulation des Kapitals wächst daher auch mehr oder minder die Anzahl der Kapitalisten.

↑ Instead of “*unter anderm*”, the First edition 503:1/o has “*notwendig*.”

↓ The concentration of means of production as discussed here cannot proceed much faster than the overall growth rate of capital, and the separation of the individual capitals even lowers this ceiling. (This discussion here of the constraints on concentration is reminiscent of the discussion of defects of the value forms in 72:3 and elsewhere.)

Two features characterize this kind of concentration, which grows directly out of accumulation, or rather is identical with it.

Zwei Punkte charakterisieren diese Art Konzentration, welche unmittelbar auf der Akkumulation beruht oder vielmehr mit ihr identisch ist.

↑ Marx calls the accumulation of capital and concentration of means of production “identical” because the same process through which capital accumulation is accomplished (as Marx just said a few sentences ago in 620:1/o), the growth of individual capitals, also increases the concentration of means of production under the same command.

Firstly: the increasing concentration of the social means of production in the hands of individual capitalists is, other things remaining equal, constrained by the degree of increase of social wealth. Secondly: the part of the social capital domiciled in each particular sphere of production is divided among many capitalists who confront each other as mutually independent and competitive commodity-producers.

Erstens: Die wachsende Konzentration der gesellschaftlichen Produktionsmittel in den Händen individueller Kapitalisten ist, unter sonst gleichbleibenden Umständen, beschränkt durch den Wachstumsgrad des gesellschaftlichen Reichtums. Zweitens: Der in jeder besondern Produktionssphäre ansässige Teil des gesellschaftlichen Kapitals ist verteilt unter viele Kapitalisten, welche einander als unabhängige und miteinander konkurrierende Warenproduzenten gegenüberstehn.

This is the negation of the concentration of means of production arising out of the same process which also fosters it.

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Therefore not only are accumulation and the concentration accompanying it scattered over many points, but the increase of each functioning capital is thwarted by the formation of new capitals and the subdivision of old. Accumulation, therefore, presents itself on the one hand as increasing concentration of the means of production, and of the command over labor, and on the other hand as repulsion of many individual capitals from one another.

The French edition is worded quite differently, but this last sentence here is recognizable in [megaII/7]547:1. Just a few sentences earlier, in [megaII/7]546:3, the French edition has stressed how limited this concentration based on accumulation is. But there is also a counterforce, called centralization. (This is the negation of the negation.) ↓ First edition 504:1, the French edition [megaII/7]547:2 introduces here the concept of *centralization*.

621:1 This fragmentation of the total social capital into many individual capitals, or the repulsion of its fractions from each other, is counteracted by their attraction. The attraction of capitals no longer means the simple concentration of the means of production and the command over labor, which is identical with accumulation.

↓ Now Marx switches from concentration of means of production again to concentration of capital, but he explains what he means by it. One might consider this his formal introduction of the term “concentration of capital.”

It is concentration of capitals already formed, destruction of their individual independence, expropriation of capitalist by capitalist, transformation of many small into few large capitals.

↓ Now Marx distinguishes two kinds of “concentration of capital.” The first kind is what I call here “concentration by retained earnings.”

This process differs from the first one in this respect, that it only presupposes a change in the distribution of already available and already functioning capital. Its field of action is therefore not limited by the absolute growth of social wealth, or in other words by the absolute limits of accumulation. Capital grows to a huge mass in a single hand in one place, because it has been lost by many in another place. This is centralization proper, as distinct from accumulation and concentration.

Die Akkumulation und die sie begleitende Konzentration sind also nicht nur auf viele Punkte zersplittert, sondern das Wachstum der funktionierenden Kapitale ist durchkreuzt durch die Bildung neuer und die Spaltung alter Kapitale. Stellt sich die Akkumulation daher einerseits dar als wachsende Konzentration der Produktionsmittel und des Kommandos über Arbeit, so andererseits als Repulsion vieler individueller Kapitale voneinander.

654:1 Dieser Zersplitterung des gesellschaftlichen Gesamtkapitals in viele individuelle Kapitale oder der Repulsion seiner Bruchteile voneinander wirkt entgegen ihre Attraktion. Es ist dies nicht mehr einfache, mit der Akkumulation identische Konzentration von Produktionsmitteln und Kommando über Arbeit.

Es ist Konzentration bereits gebildeter Kapitale, Aufhebung ihrer individuellen Selbstständigkeit, Expropriation von Kapitalist durch Kapitalist, Verwandlung vieler kleineren in weniger größere Kapitale.

Dieser Prozeß unterscheidet sich von dem ersten dadurch, daß er nur veränderte Verteilung der bereits vorhandenen und funktionierenden Kapitale voraussetzt, sein Spielraum also durch das absolute Wachstum des gesellschaftlichen Reichtums oder die absoluten Grenzen der Akkumulation nicht beschränkt ist. Das Kapital schwillt hier in einer Hand zu großen Massen, weil es dort in vielen Händen verlorengelht. Es ist die eigentliche Zentralisation im Unterschied zur Akkumulation und Konzentration.

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This last sentence was in the 1st and 2nd editions: Es ist die eigentliche Konzentration im Unterschied zur Akkumulation.

My source is [Mar69, p. 576]. While Marx earlier talked about the concentration which is identical to accumulation, this here

is concentration which is different from accumulation.

↑ The concentration of means of production is triggered by the accumulation of capital, but it gains its own momentum and frees itself of the constraints imposed on it by the accumulation process.

Question 1250 Define the concepts of repulsion and attraction of capital, and describe the mechanisms how individual capitals attract and repel each other in the course of capital accumulation. 2011fa, 2010fa, 2008fa, 2007fa, 2007SP, 2004fa, 2003fa, 2002fa.

Note “expropriation of capitalist by capitalist”! Capitalists not only expropriate workers, they also expropriate each other. This is also said at the end of footnote 88 below, which quotes *Misery of Philosophy*, and in chapter Thirty-Two, p. .

Marx does not develop the general mechanisms of this centralization (which would belong into the book about competition), but only briefly describes a few facts.

621:2/o The laws of this centralization of capitals, or of the attraction of capital by capital, cannot be developed here. A few brief factual indications must suffice.

654:2/o Die Gesetze dieser Zentralisation der Kapitale oder der Attraktion von Kapital durch Kapital können hier nicht entwickelt werden. Kurze tatsächliche Andeutung genügt.

↓ In competition, big capitals win because larger size makes them more efficient.

The battle of competition is fought by the cheapening of commodities. The cheapness of commodities depends, all other circumstances remaining the same, on the productivity of labor, which depends in turn on the scale of production. Therefore the larger capitals beat the smaller.

Der Konkurrenzkampf wird durch Verwohlfeilerung der Waren geführt. Die Wohlfeilheit der Waren hängt, caeteris paribus, von der Produktivität der Arbeit, diese aber von der Stufenleiter der Produktion ab. Die größeren Kapitale schlagen daher die kleineren.

[Accumulation Leads to Birth of Small Capitals]

↓ Furthermore, small capitals are squeezed into murderous competition amongst themselves by the rising minimum size of capital.

It will further be remembered that, with the development of the capitalist mode of production, there is an increase in the minimum amount of individual capital necessary to carry on a business under its normal conditions. The smaller capitals, therefore, crowd into spheres of production which large-scale industry has taken control of only sporadically or incompletely. Here competition rages in direct proportion to the number, and in inverse proportion to the magnitude, of the rival capitals. It always ends in the ruin of many small capitalists, whose capi-

Man erinnert sich ferner, daß mit der Entwicklung der kapitalistischen Produktionsweise der Minimalumfang des individuellen Kapitals wächst, das erheischt ist, um ein Geschäft unter seinen normalen Bedingungen zu betreiben. Die kleineren Kapitale drängen sich daher in Produktionssphären, deren sich die große Industrie nur noch sporadisch oder unvollkommen bemächtigt hat. Die Konkurrenz rast hier im direkten Verhältnis zur Anzahl und im umgekehrten Verhältnis zur Größe der rivalisierenden Kapitale. Sie endet stets mit Untergang vieler

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tals partly pass into the hands of their conquerors, and partly vanish completely.

kleineren Kapitalisten, deren Kapitale teils in die Hand des Siegers übergehn, teils untergehn.

In the first and second editions, the first sentence of this paragraph reads: "Die Gesetze dieser

Konzentration der Kapitale. . .," and its last sentence reads: "Sie endet stets mit Untergang vieler

kleiner Kapitalisten und Übergang ihrer Kapitale in die Hand des Siegers."

Now Marx introduces *credit*:

Apart from this, an altogether new force comes into existence with the development of capitalist production: the credit system.

Abgesehen hiervon bildet sich mit der kapitalistischen Produktion eine ganz neue Macht, das Kreditwesen, . . .

The passage which follows, from 'In its first stages' to 'movement towards centralization' (p.) was added by Engels to the fourth German edition, on the basis of the French translation of 1872. It is analytically less well structured than Marx's original version, which had been retained through the first three German editions. Here is Marx's original version from the first edition (afterwards I will bring the revised version):

Not only is credit itself a new and mighty weapon in the battle of competition. By unseen threads it also draws the disposable money, scattered in larger or smaller masses over the surface of society, into the hands of individual or associated capitalists. It is the specific machine for the centralization of capitals.

Es wird nicht nur selbst zu einer neuen gewaltigen Waffe im Konkurrenzkampfe. Durch unsichtbare Fäden zieht es die über die Oberfläche der Gesellschaft in größeren oder kleineren Massen zersplitterten Geldmittel in die Hände individueller oder assoziierter Kapitalisten. Es ist die spezifische Maschine zur Konzentration der Kapitale.

↑ Credit helps the centralization in two ways. (1) It becomes a weapon in the competitive battles. (2) It allows the centralization of capital without reorganization of firms, by pooling investments from many sources.

↓ Another factor intensifying centralization is the development of productivity.

The centralization of capitals, or the process of their attraction, becomes more intense in proportion as the specifically capitalist mode of production develops along with accumulation.

Die Konzentration der Kapitale, oder der Prozeß ihrer Attraktion, wird intensiver im Verhältnis, worin sich mit der Akkumulation die spezifisch kapitalistische Produktionsweise entwickelt.

Here ↑ and here ↓ Marx had originally written "concentration," but "centralization" is the better

translation. In the earlier editions of *Capital*, the terminological distinction between concentration

and centralization had not yet been as sharp.

This gives the transition of the next step in the argument: the reverse causality, from concentration to the development of productivity, is even stronger.

In its turn, centralization becomes one of the greatest levers of this development. It shortens and quickens the transformation of separate processes of production into processes socially combined and carried out on a large scale.

Ihrerseits wird die Konzentration einer der großen Hebel jener Entwicklung. Sie verkürzt und beschleunigt die Verwandlung zersplitterter Produktionsprozesse in gesellschaftlich kombinierte und auf großer Stufenleiter ausgeführte.

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↓ Increasing concentration and centralization of capital not only increases the productivity in capitalist firms, but also conquers new non-capitalist branches or creates altogether new industries. I.e., it revolutionizes the entire mode of production.

The increasing bulk of individual masses of capital becomes the material basis of an uninterrupted revolution in the mode of production itself. The capitalist mode of production continually conquers branches of industry not yet wholly, or only sporadically or formally, subjugated by it. At the same time there grow up on its soil new branches of industry, which could not exist without it. Finally, in the branches of industry already carried on upon the capitalist basis, the productive powers of labor are made to ripen as in a hothouse.

Der wachsende Umfang der individuellen Kapitalmassen wird zur materiellen Basis einer beständigen Umwälzung der Produktionsweise selbst. Fortwährend erobert die kapitalistische Produktionsweise ihr noch gar nicht, oder nur sporadisch, oder nur formell unterworfenen Arbeitszweige. Daneben erwachsen auf ihrem Boden neue, ihr von vornherein angehörige Arbeitszweige. Endlich wird in den bereits kapitalistisch betriebenen Arbeitszweigen die Produktivkraft der Arbeit treibhausmäßig gereift.

↓ Now the implications of this for labor demand (it is still the same paragraph):

In all these cases, the number of workers falls in proportion to the mass of the means of production worked up by them. An ever increasing part of the capital is turned into means of production, an ever decreasing part into labor-power. The degree to which the means of production are means of employment for the workers lessens progressively as those means become more extensive, more concentrated, and technically more efficient. A steam plough is an incomparably more efficient means of production than an ordinary plough, but the capital-value laid out in it is an incomparably smaller means for employing men than if it were laid out in ordinary ploughs.

In allen diesen Fällen sinkt die Arbeiterzahl verhältnismäßig zur Masse der von ihr verarbeiteten Produktionsmittel. Ein stets größerer Teil des Kapitals wird in Produktionsmittel umgesetzt, ein stets kleinerer in Arbeitskraft. Mit dem Umfang, der Konzentration und der technischen Wirksamkeit der Produktionsmittel vermindert sich progressiv der Grad, worin sie Beschäftigungsmittel der Arbeiter sind. Ein Dampfpflug ist ein ungleich wirksameres Produktionsmittel als der gewöhnliche Pflug, aber der in ihm ausgelegte Kapitalwert ist ein ungleich geringeres Beschäftigungsmittel, als wenn er in gewöhnlichen Pflügen realisiert wäre.

↓ Now another aspect of technical progress: not only the newly invested capital is more productive, but also the old capital is replaced by more productive capital.

At first, it is the mere adding of new capital to old which allows the objective conditions of the process of production to be extended and undergo technical transformations. But soon these changes of composition, and technical transformations, get a more or less complete grip on all the old capital that has reached the term of its period of reproduction and therefore has to be replaced. This metamorphosis of old capital is independent, to a certain extent, of the absolute growth of social capital, in the same

Zunächst ist es gerade die Zufügung von neuem Kapital zum alten, welche die gegenständlichen Bedingungen des Produktionsprozesses auszuweiten und technisch umzuwälzen erlaubt. Bald aber ergreift die veränderte Zusammensetzung und technische Umgestaltung mehr oder minder alles alte Kapital, das seinen Reproduktionstermin erreicht hat und daher neu ersetzt wird. Diese Metamorphose des alten Kapitals ist vom absoluten Wachstum des gesellschaftlichen Kapitals zu gewissem

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way as is its centralization. But this centralization, which only redistributes the social capital already to hand, and melts a number of old capitals into one, works in its turn as a powerful agent in the metamorphosis of old capital.

↑ This is the end of the passage which Engels replaced with a new text. After this, only one transitional paragraph 622:3/o, which summarizes the implications of all this for labor demand. The detailed development of the labor force under these circumstances is the topic of the next section.

Now let's look at Engels's revised version. Here about credit:

In its first stages, this system furtively creeps in as the humble assistant of accumulation, drawing into the hands of individual or associated capitalists by invisible threads the money resources, which lie scattered in larger or smaller amounts over the surface of society; but it soon becomes a new and terrible weapon in the battle of competition and is finally transformed into an enormous social mechanism for the centralization of capitals.

Commensurately with the development of capitalist production and accumulation there also takes place a development of the two most powerful levers of centralization—competition and credit. At the same time the progress of accumulation increases the material amenable to centralization, i.e. the individual capitals, while the expansion of capitalist production creates on the one hand, the social need, and on the other hand, the technical means for those immense industrial undertakings which require a previous centralization of capital for their accomplishment. Today therefore, the force of attraction which draws together individual capitals, and the tendency to centralization, are both stronger than ever before.

Grad unabhängig, wie es die Konzentration ist. Letztre aber, welche vorhandnes gesellschaftliches Kapital nur anders verteilt und viele alte Kapitale in eins verschmilzt, wirkt wieder als mächtiges Agens in dieser Metamorphose des alten Kapitals.

... das in seinen Anfängen verstohlen, als bescheidne Beihilfe der Akkumulation, sich einschleicht, durch unsichtbare Fäden die über die Oberfläche der Gesellschaft in größern oder kleinern Massen zersplitterten Geldmittel in die Hände individueller oder assoziierter Kapitalisten zieht, aber bald eine neue und furchtbare Waffe im Konkurrenzkampf wird und sich schließlich in einen ungeheuren sozialen Mechanismus zur Zentralisation der Kapitale verwandelt.

655:1/o Im Maß wie die kapitalistische Produktion und Akkumulation, im selben Maß entwickeln sich Konkurrenz und Kredit, die beiden mächtigsten Hebel der Zentralisation. Daneben vermehrt der Fortschritt der Akkumulation den zentralisierbaren Stoff, d.h. die Einzelkapitale, während die Ausweitung der kapitalistischen Produktion, hier das gesellschaftliche Bedürfnis, dort die technischen Mittel jener gewaltigen industriellen Unternehmungen schafft, deren Durchführung an eine vorgängige Zentralisation des Kapitals gebunden ist. Heutzutage ist also die gegenseitige Attraktionskraft der Einzelkapitale und die Tendenz zur Zentralisation stärker als je zuvor.

Question 1252 *How do competition and credit help in the process of centralization?* 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa.

Question 1253 *How does Marx's concept of competition differ from the neoclassical concept and from the "better mousetrap" ideology surrounding competition in modern US society?* 2012fa, 2010fa, 2008fa.

But if the relative extension and energy of the movement towards centralization is determined, to a certain degree, by the magnitude of capitalist wealth and the superiority of the economic mechanism already attained, the advance of centralization does not depend in any way on a positive growth in the magnitude of social capital. And this is what distinguishes centralization from concentration, the latter being only another name for reproduction on an extended scale. Centralization may result from a mere change in the distribution of already existing capitals, from a simple alteration in the quantitative grouping of the component parts of social capital. Capital can grow into powerful masses in a single hand in one place, because in other places it has been withdrawn from many individual hands. In any given branch of industry centralization would reach its extreme limit if all the individual capitals invested there were fused into a single capital.^{77b} In a given society this limit would be reached only when the entire social capital was united in the hands of either a single capitalist or a single capitalist company.

^{77b} [Note by Engels to the fourth German edition:] The latest English and American ‘trusts’ are already striving to attain this goal by attempting to unite at least all the large-scale concerns in one branch of industry into a single great joint-stock company with a practical monopoly.

Marx uses the word “concentration” in two meanings. Either as a surface category describing the empirical fact that capital comes in bigger and bigger chunks, or as an analytical term denoting one particular mechanism how this increase of individual capitals is accomplished, namely, by reinvestment of profits into the same firm, as opposed to centralization proper which combines already existing capitals. In the title of section 2, “concentration” is used in the former meaning. In the sentence in the above paragraph: “concentration is only another name for reproduction on an extended scale,” the latter meaning applies: this concentration mechanism is nothing but extended reproduction on the level of individual capitals.

Centralization supplements the work of accumulation by enabling industrial capi-

Wenn aber auch die relative Ausdehnung und Energie der zentralisierenden Bewegung in gewissem Grad bestimmt ist durch die schon erreichte Größe des kapitalistischen Reichtums und die Überlegenheit des ökonomischen Mechanismus, so hängt doch der Fortschritt der Zentralisation keineswegs ab von dem positiven Größenwachstum des gesellschaftlichen Kapitals. Und dies speziell unterscheidet die Zentralisation von der Konzentration, die nur ein anderer Ausdruck für die Reproduktion auf erweiterter Stufenleiter ist. Die Zentralisation kann erfolgen durch bloße veränderte Verteilung schon bestehender Kapitale, durch einfache Veränderung der quantitativen Gruppierung der Bestandteile des gesellschaftlichen Kapitals. Das Kapital kann hier zu gewaltigen Massen in einer Hand anwachsen, weil es dort vielen einzelnen Händen entzogen wird. In einem gegebenen Geschäftszweig hätte die Zentralisation ihre äußerste Grenze erreicht, wenn alle darin angelegten Kapitale zu einem Einzelkapital verschmolzen wären.^{77b} In einer gegebenen Gesellschaft wäre diese Grenze erreicht erst in dem Augenblick, wo das gesamte gesellschaftliche Kapital vereinigt wäre in der Hand, sei es eines einzelnen Kapitalisten, sei es einer einzigen Kapitalistengesellschaft.

^{77b} {Zur 4. Aufl.—Die neuesten englischen und amerikanischen „Trusts“ streben dies Ziel bereits an, indem sie versuchen, wenigstens sämtliche Großbetriebe eines Geschäftszweigs zu einer großen Aktiengesellschaft mit praktischem Monopol zu vereinigen.—F.E.}

656:1 Die Zentralisation ergänzt das Werk der Akkumulation, indem sie die industriell-

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talists to extend the scale of their operations. Whether this latter result is the consequence of accumulation or centralization, whether centralization is accomplished by the violent method of annexation—where certain capitals become such preponderant centres of attraction for others that they shatter the individual cohesion of the latter and then draw the separate fragments to themselves—or whether the fusion of a number of capitals already formed or in process of formation takes place by the smoother process of organizing joint-stock companies—the economic effect remains the same. Everywhere the increased scale of industrial establishments is the starting-point for a more comprehensive organization of the collective labor of many people, for a broader development of their material motive forces, i.e. for the progressive transformation of isolated processes of production, carried on by customary methods, into socially combined and scientifically arranged processes of production.

But accumulation, the gradual increase of capital by reproduction as it passes from the circular to the spiral form, is clearly a very slow procedure compared with centralization, which needs only to change the quantitative groupings of the constituent parts of social capital. The world would still be without railways if it had had to wait until accumulation had got a few individual capitals far enough to be adequate for the construction of a railway. Centralization, however, accomplished this in the twinkling of an eye, by means of joint-stock companies. And while in this way centralization intensifies and accelerates the effects of accumulation, it simultaneously extends and speeds up those revolutions in the technical composition of capital which raise its constant portion at the expense of its variable portion, thus diminishing the relative demand for labor.

len Kapitalisten instand setzt, die Stufenleiter ihrer Operationen auszudehnen. Sei dies letztere Resultat nun Folge der Akkumulation oder der Zentralisation; vollziehe sich die Zentralisation auf dem gewaltsamen Weg der Annexion—wo gewisse Kapitale so überwiegende Gravitationszentren für andre werden, daß sie deren individuelle Kohäsion brechen und dann die vereinzelter Bruchstücke an sich ziehn—oder geschehe die Verschmelzung einer Menge bereits gebildeter, resp. in der Bildung begriffener Kapitale vermittelt des glatteren Verfahrens der Bildung von Aktiengesellschaften—die ökonomische Wirkung bleibt dieselbe. Die gewachsne Ausdehnung der industriellen Etablissements bildet überall den Ausgangspunkt für eine umfassendere Organisation der Gesamtarbeit vieler, für eine breitere Entwicklung ihrer materiellen Triebkräfte, d.h. für die fortschreitende Umwandlung einzelner und gewohnheitsmäßig betriebener Produktionsprozesse in gesellschaftlich kombinierte und wissenschaftlich disponierte Produktionsprozesse.

656:2 Es ist aber klar, daß die Akkumulation, die allmähliche Vermehrung des Kapitals durch die aus der Kreisform in die Spirale übergehende Reproduktion ein gar langsames Verfahren ist, im Vergleich mit der Zentralisation, die nur die quantitative Gruppierung der integrierenden Teile des gesellschaftlichen Kapitals zu ändern braucht. Die Welt wäre noch ohne Eisenbahnen, hätte sie solange warten müssen, bis die Akkumulation einige Einzelkapitale dahin gebracht hätte, dem Bau einer Eisenbahn gewachsen zu sein. Die Zentralisation dagegen hat dies, vermittelt der Aktiengesellschaften, im Handumdrehn fertiggebracht. Und während die Zentralisation so die Wirkungen der Akkumulation steigert und beschleunigt, erweitert und beschleunigt sie gleichzeitig die Umwälzungen in der technischen Zusammensetzung des Kapitals, die dessen konstanten Teil vermehren auf Kosten seines variablen Teils und damit die relative Nachfrage nach Arbeit vermin-

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Reference to a spiral already in 580:1.

The masses of capital welded together overnight by centralization reproduce and multiply as the others do, only more rapidly, and they thereby become new and powerful levers of social accumulation. Therefore, when we speak of the progress of social accumulation, we tacitly include—these days—the effects of centralization.

dern.

656:3/o Die durch die Zentralisation über Nacht zusammengeschweißten Kapitalmassen reproduzieren und vermehren sich wie die andren, nur rascher und werden damit zu neuen mächtigen Hebeln der gesellschaftlichen Akkumulation. Spricht man also vom Fortschritt der gesellschaftlichen Akkumulation, so sind darin—heutzutage—die Wirkungen der Zentralisation stillschweigend einbegriffen.

The definition of accumulation is: adding surplus-value to already existing capital. But nowadays, this social process of accumulation is accompanied by the merging of already existing individual capitals into larger and larger units (centralization). This strengthens the effects of accumulation and therefore one does not usually distinguish the effects of accumulation from those of centralization but considers both to be effects of accumulation.

Question 1254 *What is the centralization of capital? Show how accumulation leads to centralization. Which effects of accumulation are enhanced by centralization?* 2011fa, 2009fa, 2008fa, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP, 1998WI.

The next two paragraphs say that technical innovation is usually first implemented by new capitals, and then taken over by the existing capitals when the existing plant and equipment has to be renewed. The obvious implications which this has for the demand for labor give a convenient transition to section 3.

The additional capitals formed in the normal course of accumulation (see chapter 24, section 1) are the favorite vehicles for the exploitation of new inventions and discoveries, and of industrial improvements in general.

657:1 Die im Lauf der normalen Akkumulation gebildeten Zusatzkapitale (s. Kap. XXII, 1) dienen vorzugsweise als Vehikel zur Exploitation neuer Erfindungen und Entdeckungen, überhaupt industrieller Vervollkommnungen.

The reasons which require new capitals are also alive in existing capitals. Radical technical innovations do not always lead to the formation of new capitals but may lead to drastic renovations of existing capitals, and to the repulsion of previously employed labor.

But eventually also the old capital reaches the point where it has to be renewed in all its aspects, where it sheds its skin and is reborn in a perfected technical shape, in which a smaller quantity of labor will suffice to set in motion a larger quantity of machinery and raw material. The absolute reduction in the demand for labor which necessarily follows from this is obviously so much the greater, the higher the degree to which the capitals undergoing this process of renewal are already massed together by virtue of the

Aber auch das alte Kapital erreicht mit der Zeit den Moment seiner Erneuerung an Haupt und Gliedern, wo es sich häutet und ebenfalls wiedergeboren wird in der vervollkommenen technischen Gestalt, worin eine geringere Masse Arbeit genügt, eine größere Masse Maschinerie und Rohstoffe in Bewegung zu setzen. Die hieraus notwendig folgende absolute Abnahme der Nachfrage nach Arbeit wird selbstredend um so größer, je mehr die diesen Erneuerungsprozeß durchmachenden Kapitale bereits zu

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movement towards centralization.

Massen angehäuft sind vermöge der zentralisierenden Bewegung.

This is where Engels's insert ends. The last paragraph makes the transition from the attraction and repulsion of capitals to the attraction and repulsion of laborers:

622:3/o On the one hand, therefore, the additional capital formed in the course of further accumulation attracts fewer and fewer workers in proportion to its magnitude. On the other hand, the old capital periodically reproduced with a new composition repels more and more of the workers formerly employed by it.

657:2 Einerseits attrahiert also das im Fortgang der Akkumulation gebildete Zuschußkapital, verhältnismäßig zu seiner Größe, weniger und weniger Arbeiter. Andererseits repelliert das periodisch in neuer Zusammensetzung reproduzierte alte Kapital mehr und mehr früher von ihm beschäftigte Arbeiter.

This will be discussed in the next section.

3. Progressive Production of a Relative Surplus-Population or Industrial Reserve Army

Section 1 discussed accumulation with constant composition of capital. 2 showed that sustained accumulation is accompanied by an increase in the composition of capital. The present section 3 shows that the combined effect of both kinds of accumulation is the creation of a relative surplus-population, and discusses also the reverse causality, the effect which the relative surplus-population has on the accumulation of capital. In section 4, the forms of existence of the relative surplus-population will be discussed.

We subdivide section 3 into four subsections. The first subsection describes how changes in organic composition outpace the accumulation of capital, which gives rise to a surplus population. The second subsection demonstrates the functionality of the surplus population for capital. The third shows how changes in the link between variable capital and labor supply increase the surplus population even more, and the fourth discusses the movement of wages.

3.a. [The Capitalist Population Law]

In the previous section, we have seen that the organic composition of capital increases with accumulation. Now a new point is added: the rise in the organic composition is *faster* than accumulation, which leads to a relative *surplus-population*. Marx gives several mechanisms which cause the increase of the organic composition to be faster than the accumulation of capital:

(1) Due to centralisation, i.e., the merging of individual capitals, the scale of production increases. The technical progress connected with such increases can take place even if the total mass of capital does not increase. (623:2/o)

(2) Technical innovation in the additional capital forces also the original capital to innovate, which may result in an absolute loss of jobs. (Again 623:2/o)

(3) More and more industries are seized by increasing organic composition. (624:1/o)

(4) Intermediate pauses, in which accumulation takes place with constant composition of capital, become shorter. (623:2/o)

Additional arguments will be given in the passage called here section 3.c. All this can perhaps be summarized as follows: the technological fact that direct labor becomes less

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and less important as technology advances is used successfully by capital to keep labor at a disadvantage in the accumulation process of capital.

In this situation, in which the effect is faster than the cause, the empirical evidence is misleading: that what is really the effect seems to be the cause. See 623:2/o. This is yet another aspect how the capital relations mystify.

After this summary, let us turn to the paragraph-by-paragraph discussion of the text. ↓
The section begins with a summary of the preceding section:

623:1 The accumulation of capital, which originally appeared only as its quantitative extension, takes place, as we have seen, under a continuous qualitative change in the composition of capital. Its constant component increases more and more at the expense of its variable component.^{77c}

657:3 Die Akkumulation des Kapitals, welche ursprünglich nur als seine quantitative Erweiterung erschien, vollzieht sich, wie wir gesehen, in fortwährendem qualitativen Wechsel seiner Zusammensetzung, in beständiger Zunahme seines konstanten auf Kosten seines variablen Bestandteils^{77c}

Vollzieht sich (takes place) is one of Marx's words for how a higher

level tendency is carried out on the lower level.

The accumulation of capital, i.e., the amassing of more and more value in fewer and fewer hands, is a social necessity for capitalism. As the capitalists put into practice the drive inherent in capital to expand value quantitatively, they increase the scale of production, and the co-operation of their workers leads to more efficient production. This is an example of emergence. The general drive of capital is quantitative, but co-operation enables the individual capitalists to make qualitative changes. They are eager to introduce technical innovations that take advantage of economies of scale, because this helps them in their competition.

^{77c} [Note by Engels to the third German edition:] Marx's personal copy has the marginal note: 'Note here for working out later: if the extension is only quantitative, then for a greater and a smaller capital in the same branch of business the profits are proportional to the magnitudes of the capitals advanced. If the quantitative extension induces a qualitative change, then the rate of profit on the larger capital rises at the same time.'

^{77c} {Note zur 3. Auflage.—In Marx' Handexemplar steht hier die Randbemerkung: „Hier für Spätres zu bemerken: Ist die Erweiterung nur quantitativ, so verhalten sich bei größerem und kleinerem Kapital in demselben Geschäftszweig die Profite wie die Größen der vorgeschossenen Kapitale. Wirkt die quantitative Erweiterung qualitativ, so steigt zugleich die Rate des Profits für das größte Kapital.“—F.E.}

Now Marx introduced the thesis to be proved:

623:2/o The specifically capitalist mode of production, the development of the productive powers of labor which corresponds to it, and the change in the organic composition of capital which results from it—all these do not merely keep pace with the progress of accumulation, or growth of social wealth. They develop at a much quicker rate, because simple accumulation, or the absolute expansion of the total social capital, is accompanied by the centralization of its individual elements, and the change in the technical composition of the additional capital is accompanied by a similar change

657:4/o Die spezifisch kapitalistische Produktionsweise, die ihr entsprechende Entwicklung der Produktivkraft der Arbeit, der dadurch verursachte Wechsel in der organischen Zusammensetzung des Kapitals halten nicht nur Schritt mit dem Fortschritt der Akkumulation oder dem Wachstum des gesellschaftlichen Reichtums. Sie schreiten ungleich schneller, weil die einfache Akkumulation oder die absolute Ausdehnung des Gesamtkapitals von der Zentralisation seiner individuellen Elemente, und die technische Umwälzung des Zusatzkapitals von technischer Umwälzung des Originalkapi-

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in the technical composition of the original capital.

tals begleitet sind.

“Begleitet” implies a causal connection: the old capital does

not do it on its own but it has to do it because the new capital does it.

Fowkes’s “goes hand in hand” is too symmetric.

“Quicker rate” is a quantitative assertion. Therefore Marx is going to look at things quantitatively now. As in other situations, he does not bring formulas but typical math examples: With the progress of accumulation, therefore, the proportion of constant to variable capital changes. If it was originally say 1:1, it now becomes successively 2:1, 3:1, 4:1, 5:1, 7:1, etc., so that as the capital grows, instead of 1/2 its total value, only 1/3, 1/4, 1/5, 1/6, 1/8 etc. is turned into labor-power, and, on the other hand, 2/3, 3/4, 4/5, 5/6, 7/8, into means of production.

Mit dem Fortgang der Akkumulation wandelt sich also das Verhältnis von konstantem zu variablem Kapitalteil, wenn ursprünglich 1:1, in 2:1, 3:1, 4:1, 5:1, 7:1 usw., so daß, wie das Kapital wächst, statt 1/2 seines Gesamtwerts progressiv nur 1/3, 1/4, 1/5, 1/6, 1/8 usw. in Arbeitskraft, dagegen 2/3, 3/4, 4/5, 5/6, 7/8 usw. in Produktionsmittel umgesetzt wird.

↑ In formulas this means $(c/v)' > 0$. Implications for labor demand:

Since the demand for labor is determined not by the extent of the total capital but by its variable constituent alone, that demand falls progressively with the growth of the total capital, instead of rising in proportion to it, as was previously assumed.

Da die Nachfrage nach Arbeit nicht durch den Umfang des Gesamtkapitals, sondern durch den seines variablen Bestandteils bestimmt ist, fällt sie also progressiv mit dem Wachstum des Gesamtkapitals, statt, wie vorhin unterstellt, verhältnismäßig mit ihm zu wachsen.

Perhaps Marx means by this that $v'/v < c'/c$, i.e., that the rate of growth of v is smaller than that of c . This is indeed mathematically equivalent to $(c/v)' > 0$. But Marx possibly means a stronger condition than that. Should we add $((c'/c) - (v'/v))' > 0$, i.e., the difference in growth rates between c and v is not only positive but also increases? Or perhaps Marx did not mean a concept that can be expressed in a fixed mathematical formula?

It falls relatively to the magnitude of the total capital, and at an accelerated rate, as this magnitude increases.

Sie fällt relativ zur Größe des Gesamtkapitals und in beschleunigter Progression mit dem Wachstum dieser Größe.

“It falls relatively to the magnitude of the total capital” means in formulas $(v/(c+v))' < 0$, which is again equivalent with the above two conditions $v'/v < c'/c$ and $(c/v)' > 0$. The clause “at an accelerated rate, as this magnitude increases” again seems to mean an additional mathematical condition. The last sentence of the paragraph will give what seems to be an alternative formulation of the same condition.

With the growth of the total capital, its variable constituent, the labor incorporated in it, does admittedly increase, but in a constantly diminishing proportion.

Mit dem Wachstum des Gesamtkapitals wächst zwar auch sein variabler Bestandteil, oder die ihm einverleibte Arbeitskraft, aber in beständig abnehmender Proportion.

I.e., in addition to the above $(v/(c+v))' < 0$, Marx also postulates $v' > 0$. Next, Marx gives a new argument for the increase in organic composition:

The intermediate pauses in which accumulation works as simple extension of production on a given technical basis are shortened.

Die Zwischenpausen, worin die Akkumulation als bloße Erweiterung der Produktion auf gegebner technischer Grundlage wirkt, verkürzen sich.

↑ Higher productivity also entails a faster pace of change in productivity, more frequent innovations. ↓ The next sentence repeats an argument already brought in [megaII/5]505:2/o: since also the old capital increases its organic composition, the result may not merely be a slower growth of additional demand for labor, but even a decline in the overall labor demand.

It is not merely that an accelerated accumulation of the total capital, accelerated in a constantly growing progression, is needed to absorb an additional number of workers, or even, on account of the constant metamorphosis of old capital, to keep employed those already performing their functions.

Nicht nur wird eine in wachsender Progression beschleunigte Akkumulation des Gesamtkapitals erheischt, um eine zusätzliche Arbeiterzahl von gegebener Größe zu absorbieren oder selbst, wegen der beständigen Metamorphose des alten Kapitals, die bereits funktionierende zu beschäftigen.

But this is only a sideline in the next passage; the main idea is the self-reinforcing effect of accumulation:

This increasing accumulation and centralization also becomes in its turn a source of new changes in the composition of capital, or in other words of an accelerated diminution of the capital's variable component, as compared with its constant one.

Ihrerseits schlägt diese wachsende Akkumulation und Zentralisation selbst wieder um in eine Quelle neuer Wechsel der Zusammensetzung des Kapitals oder abermalig beschleunigter Abnahme seines variablen Bestandteils, verglichen mit dem konstanten.

↓ All this *looks* as if the growth of the working population outpaced that of capital. In other words, it looks as if it was the laborers' own fault that they do not get high wages; they are too many.

This accelerated relative diminution of the variable component, which accompanies the accelerated increase of the total capital and moves more rapidly than this increase, seems to be just the opposite at the other pole, namely, an apparently absolute increase in the working population, an increase which always moves more rapidly than that of the variable capital or the means of employment.

Diese mit dem Wachstum des Gesamtkapitals beschleunigte und rascher als sein eigenes Wachstum beschleunigte relative Abnahme seines variablen Bestandteils scheint auf der andren Seite umgekehrt stets rascheres absolutes Wachstum der Arbeiterbevölkerung als das des variablen Kapitals oder ihrer Beschäftigungsmittel.

This illusion, that the effect seems the cause, was already addressed in ... This last sentence contains once more a formulation of the mathematical condition Marx was thinking of a few sentences earlier. At the beginning of footnote 79 to the next paragraph, 624:1/o, Marx calls this tendency the "law of the progressive diminution of the relative magnitude of the variable capital."

Question 1258 *Does the surplus-population arise from capital's inability to keep pace with the growth of the population?* 2013fa, 2012fa, 2011fa, 2010fa, 2008fa, 2007fa, 2007SP, 2005fa, 1997sp.

As opposed to this illusion, the accumulation of capital is in control.

But in fact it is capitalist accumulation itself that constantly produces, and produces indeed in direct relation with its own energy and extent, a relatively redundant working

Die kapitalistische Akkumulation produziert vielmehr, und zwar im Verhältnis zu ihrer Energie und ihrem Umfang, beständig eine relative, d.h. für die mittleren Verwer-

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population, i.e. a population which is superfluous to capital's average requirements for its own valorization, and is therefore a surplus population.

This is the first time the word "relative surplus-population" is used. Marx calls it a *reserve army* only when he talks about its *function* as a reserve for sudden expansions in the next paragraph!

Question 1259 Why does the rise in the organic composition outpace the growth of capital? [2013fa](#), [2008fa](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#).

Question 1260 What does capital need this surplus-population for? (How come it produces exactly what it needs?) [2011fa](#), [2009fa](#), [2008fa](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [1999SP](#), [1998WI](#).

After a discussion of the aggregate numbers follows now a discussion of the industrial distribution of accumulation.

624:1/o If we consider the total social capital, we can say that the movement of its accumulation sometimes causes periodic changes, and at other times its various aspects distribute themselves simultaneously over the different spheres of production. In some spheres a change in the composition of capital occurs without any increase in its absolute magnitude, as a consequence of pure centralization; in others the absolute growth of capital is connected with an absolute diminution in its variable component, or in other words, in the labor-power absorbed by it; in others again, capital continues to grow for a time on its existing technical basis, and attracts additional labor-power in proportion to its increase, while at other times it undergoes organic change and reduces its variable component; in all spheres, the increase of the variable part of the capital, and therefore of the number of workers employed by it, is always connected with violent fluctuations and the temporary production of a surplus population, whether this takes the more striking form of the extrusion of workers already employed, or the less evident, but not less real, form of a greater difficulty in absorbing the additional working population through its customary outlet channels.⁷⁸

tungsbedürfnisse des Kapitals überschüssige, daher überflüssige oder Zuschuß-Arbeiterbevölkerung.

658:1/oo Das gesellschaftliche Gesamtkapital betrachtet, ruft die Bewegung seiner Akkumulation bald periodischen Wechsel hervor, bald verteilen sich ihre Momente gleichzeitig über die verschiedenen Produktionssphären. In einigen Sphären findet Wechsel in der Zusammensetzung des Kapitals statt ohne Wachstum seiner absoluten Größe, infolge bloßer Zentralisation; in andren ist das absolute Wachstum des Kapitals mit absoluter Abnahme seines variablen Bestandteils oder der von ihm absorbierten Arbeitskraft verbunden; in andren wächst das Kapital bald auf seiner gegebenen technischen Grundlage fort und attrahiert zuschüssige Arbeitskraft im Verhältnis seines Wachstums, bald tritt organischer Wechsel ein und kontrahiert sich sein variabler Bestandteil; in allen Sphären ist das Wachstum des variablen Kapitalteils und daher der beschäftigten Arbeiterzahl stets verbunden mit heftigen Fluktuationen und vorübergehender Produktion von Übervölkerung, ob diese nun die auffallendere Form von Repulsion bereits beschäftigter Arbeiter annimmt oder die mehr unscheinbare, aber nicht minder wirksame, erschwerte Absorption der zuschüssigen Arbeiterbevölkerung in ihre gewohnten Abzugskanäle.⁷⁸

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“Infolge bloßer Zentralization:
The fourth German editions has
here ‘concentration’ instead of

‘centralization’ (footnote to
Random House edition, p. 782,
and also in MEW, p. 658). To me,

“centralization” seems more
correct, this is what I am using.

This last sentence is important: the clogging of the customary fast-flowing outlet channels does not seem to be repulsion if one looks at one industry at a time, but it is repulsion of one looks at the totality.

Footnote 78 gives data which show decline almost everywhere except spinning/weaving and coal mining:

⁷⁸ The census of England and Wales shows, for instance, all persons employed in agriculture (landlords, farmers, gardeners, shepherds, etc. included): 1851: 2,011,447; 1861: 1,924,110; a reduction of 87,337. Worsteds manufacture, 1851: 102,714 persons; 1861: 79,242. Silk weaving, 1851: 111,940; 1861: 101,678. Calico-printing, 1851: 12,098; 1861: 12,556; a small increase, despite the enormous extension of this industry, which implies a great proportional reduction in the number of workers employed. Hat-making, 1851: 15,957; 1861: 13,814. Straw-hat and bonnet-making, 1851: 20,393; 1861: 18,176. Malting, 1851: 10,566; 1861: 10,677. Chandlery, 1851: 4,949; 1861: 4,686; this fall is due, among other things, to the increase in lighting by gas. Comb-making, 1851: 2,038; 1861: 1,478. Sawyers, 1851: 30,552; 1861: 31,647; a small increase, owing to the spread of sawing-machines. Nail-making, 1851: 26,940; 1861: 26,130; a fall, owing to the competition of machinery. Tin- and copper-mining, 1851: 31,360; 1861: 32,041. As against this, however, we have cotton-spinning and weaving, 1851: 371,777; 1861: 456,646; and coal-mining, 1851: 183,389; 1861: 246,613. ‘The increase of laborers is generally greatest, since 1851, in those branches of industry in which machinery has not up to the present been employed with success’ (*Census of England and Wales for the Year 1861*, Vol. 3, London, 1863, p. 36).

⁷⁸ Der Zensus für England und Wales zeigt u.a.: Alle in der Agrikultur beschäftigten Personen (Eigentümer, Pächter, Gärtner, Hirten usw. eingeschlossen)—1851: 2 011 447, 1861: 1 924 110, Abnahme—87 337. Worsteds Manufaktur—1851: 102 714 Personen, 1861: 79 242; Seidenfabrik—1851: 111 940, 1861: 101 678; Kattundrucker—1851: 12 098, 1861: 12 556, welche geringe Zunahme trotz des enorm ausgedehnten Geschäfts große proportionelle Abnahme in der Zahl der beschäftigten Arbeiter bedingt. Hutmacher—1851: 15 957, 1861: 13 814; Strohhut- und Bonnetmacher—1851: 20 393, 1861: 18 176; Malzer—1851: 10 566, 1861: 10 677; Lichtgießer—1851: 4 949, 1861: 4 686. Diese Abnahme ist u.a. der Zunahme der Gasbeleuchtung geschuldet. Kammacher—1851: 2 038, 1861: 1 478; Holzsäger—1851: 30 552, 1861: 31 647, geringe Zunahme infolge des Aufschwungs von Sägemaschinen; Nagelmacher—1851: 26 940, 1861: 26 130, Abnahme infolge der Maschinenkonkurrenz; Arbeiter in Zinn- und Kupferbergwerken—1851: 31 360, 1861: 32 041. Dagegen: Baumwollspinnereien und Webereien—1851: 371 777, 1861: 456 646; Kohlenbergwerke—1851: 183 389, 1861: 246 613. „Die Zunahme von Arbeitern ist im allgemeinen am größten seit 1851 in solchen Zweigen, worin die Maschinerie bisher noch nicht mit Erfolg angewandt worden.“ („Census of England and Wales for 1861“, vol. III, Lond. 1863, p. 35–39.)

In a long sentence, Marx emphasizes how a “broader and fuller stream of all the sources of wealth” facilitates the displacement of the workers by machinery:

With the size of the already functioning social capital and the rate of its increase, with the extension of the scale of production and of the mass of workers set in motion, with the development of the productive powers of their labor—with the broader and fuller stream of all the sources of wealth, also the degree intensifies to which the greater attraction of workers by capital is accompa-

Mit der Größe des bereits funktionierenden Gesellschaftskapitals und dem Grad seines Wachstums, mit der Ausdehnung der Produktionsleiter und der Masse der in Bewegung gesetzten Arbeiter, mit der Entwicklung der Produktivkraft ihrer Arbeit, mit dem breiteren und volleren Strom aller Springquellen des Reichtums dehnt sich auch die Stufenleiter, worin größere

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nied by their greater repulsion; the speed increases with which the organic composition of capital and in its technical form change, and the circle of industries expands which become involved, be it simultaneously, be it alternatively, in this change.

Attraktion der Arbeiter durch das Kapital mit größerer Repulsion derselben verbunden ist, nimmt die Raschheit der Wechsel in der organischen Zusammensetzung des Kapitals und seiner technischen Form zu, und schwillt der Umkreis der Produktions-sphären, die bald gleichzeitig, bald abwechselnd davon ergriffen werden.

Now Marx formulates the capitalist population law, emphasizing that the workers themselves are the ones who produce the means which make them superfluous:

With the accumulation of capital, which is their own production, the working population produce, to an increasing extent, the means that make them relatively superfluous.⁷⁹

Mit der durch sie selbst produzierten Akkumulation des Kapitals produziert die Arbeiterbevölkerung also in wachsendem Umfang die Mittel ihrer eignen relativen Überzähligmachung.⁷⁹

Footnote 79 gives some sources how the economists had perceived this law. The passage in brackets was added by Engels on the authority of changes made by Marx in the French edition:

⁷⁹ {The law of progressive diminution of the relative magnitude of variable capital, together with its effect on the situation of the class of wage-laborers is intuited rather than understood by some of the prominent economists of the classical school. In this respect the greatest merit is due to John Barton although he, like all the others, mixes up constant with fixed capital, and variable with circulating capital. He says:} 'The demand for labor depends on the increase of circulating, and not of fixed capital. Were it true that the proportion between these two sorts of capital is the same at all times, and in all circumstances, then, indeed, it follows that the number of laborers employed is in proportion to the wealth of the state. But such a proposition has not the semblance of probability. As arts are cultivated, and civilization is extended, fixed capital bears a larger and larger proportion to circulating capital. The amount of fixed capital employed in the production of a piece of British muslin is at least a hundred, probably a thousand times greater than that employed in a similar piece of Indian muslin. And the proportion of circulating capital is a hundred or thousand times less ... the whole of the annual savings, added to the fixed capital, would have no effect in increasing the demand for labor' (John Barton, *Observations on the Circumstances which Influence the Condition of the Laboring Classes of Society*, London, 1817, pp. 16–17). 'The same cause which may increase the net revenue of the

⁷⁹ Das Gesetz der progressiven Abnahme der relativen Größe des variablen Kapitals, nebst seinen Wirkungen auf die Lage der Lohnarbeiterklasse, ist von einigen ausgezeichneten Ökonomen der klassischen Schule mehr geahnt als begriffen worden. Das größte Verdienst hierin gebührt John Barton, obwohl er, wie alle anderen, das konstante Kapital mit dem fixen, das variable mit dem zirkulierenden zusammenwirft. Er sagt: „Die Nachfrage nach Arbeit hängt von der Vermehrung des zirkulierenden und nicht des fixen Kapitals ab. Wenn es stimmte, daß das Verhältnis zwischen diesen beiden Arten des Kapitals zu allen Zeiten und unter allen Umständen dasselbe ist, dann folgt allerdings daraus, daß die Anzahl der beschäftigten Arbeiter sich nach dem Reichtum des Staates richtet. Aber eine solche Behauptung hat nicht den Anschein von Wahrscheinlichkeit. In dem Maße, wie die Naturwissenschaften gepflegt werden und die Zivilisation sich ausbreitet, wächst das fixe Kapital im Verhältnis zum zirkulierenden immer mehr und mehr an. Die Summe des bei der Produktion eines Stückes britischen Musselins verwendeten fixen Kapitals ist wenigstens hundertmal, wahrscheinlich aber tausendmal größer als jene, die zur Erzeugung eines ähnlichen Stückes indischen Musselins verwendet wird. Und der Anteil des zirkulierenden Kapitals ist hundert- oder tausendmal kleiner. . . Wenn die Gesamtheit der jährlichen Ersparnisse dem fixen Kapital zugeschlagen würde, so würden sie sich nicht in ei-

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country may at the same time render the population redundant, and deteriorate the condition of the laborer' (Ricardo, op. cit., p. 469). With the increase of capital, 'the demand' (for labor) 'will be in a diminishing ratio' (ibid., p. 480, n.). 'The amount of capital devoted to the maintenance of labor may vary, independently of any changes in the whole amount of capital ... Great fluctuations in the amount of employment, and great suffering may become more frequent as capital itself becomes more plentiful' (Richard Jones, An Introductory Lecture on Political Economy, London, 1833, p. 12). 'Demand' (for labor) 'will rise ... not in proportion to the accumulation of the general capital ... Every augmentation, therefore, in the national stock destined for reproduction, comes, in the progress of society, to have less and less influence upon the condition of the laborer' (Ramsay, op. cit., pp. 90–91).

ner erhöhten Nachfrage nach Arbeit auswirken.“ (John Barton, „Observations on the Circumstances which Influence the Condition of the Labouring Classes of Society“, Lond. 1817, p. 16, 17.) „Die gleiche Ursache, die die Nettoeinnahme des Landes anwachsen läßt, kann gleichzeitig einen Überfluß an Bevölkerung erzeugen und die Lage des Arbeiters verschlechtern.“ (Ricardo, l.c. p. 469.) Mit der Zunahme des Kapitals „wird die Nachfrage“ (nach Arbeit) „verhältnismäßig abnehmen“. (l.c. p. 40, Note.) „Der Betrag des Kapitals, der zur Erhaltung von Arbeit bestimmt ist, kann sich ändern, unabhängig von irgendwelchen Veränderungen im Gesamtbetrag des Kapitals ... Große Schwankungen im Ausmaß der Beschäftigung und große Not können häufiger werden in dem Maße, wie das Kapital selbst reichlicher wird.“ (Richard Jones, „An Introductory Lecture on Pol. Econ.“, Lond. 1833, p. 12.) „Nachfrage“ (nach Arbeit) „wird steigen ... nicht im Verhältnis zur Akkumulation des Gesamtkapitals ... Jede Vermehrung des zur Reproduktion bestimmten nationalen Kapitals wird deshalb im Laufe des gesellschaftlichen Fortschritts einen stets geringeren Einfluß auf die Lage des Arbeiters haben.“ (Ramsay, l.c. p. 90, 91.)

Now some concluding general remarks about laws of population:

This is a law of population peculiar to the capitalist mode of production; and in fact every particular historical mode of production has its own specific historically valid laws of population. An abstract law of population exists only for plants and animals (as long as man does not intervene historically).

Es ist dies ein der kapitalistischen Produktionsweise eigentümliches Populationsgesetz, wie in der Tat jede besondere historische Produktionsweise ihre besondern, historisch gültigen Populationsgesetze hat. Ein abstraktes Populationsgesetz existiert nur für Pflanze und Tier, soweit der Mensch nicht geschichtlich eingreift.

Exam Question 1262 *Why is the surplus-population created under capitalism called “relative”?* 2012fa, 2011fa, 2010fa, 2009fa, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP.

3.b. [Surplus Population Functions as Reserve Army]

The surplus population is an effect of capitalism. But it is also one of its levers, even conditions, since it functions as a *reserve army*:

626:1/oa A surplus population of workers is a necessary product of accumulation or of the development of wealth on a capitalist basis. However this surplus population also becomes, conversely, the lever of capitalist accumulation, and indeed a condition for the very existence of the capitalist mode of pro-

661:1 Wenn aber eine Surplusarbeiterpopulation notwendiges Produkt der Akkumulation oder der Entwicklung des Reichtums auf kapitalistischer Grundlage ist, wird diese Übervölkerung umgekehrt zum Hebel der kapitalistischen Akkumulation, ja zu einer Existenzbedingung der kapitalistischen Pro-

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duction. It constitutes a disposable industrial reserve army, which belongs to capital just as absolutely as if the latter had bred it at its own cost. It creates a mass of human material always ready for exploitation by capital, according to capital's own changing valorization requirements, independently of the limits of the actual population increase.

duktionsweise. Sie bildet eine disponible industrielle Reservearmee, die dem Kapital ganz so absolut gehört, als ob es sie auf seine eignen Kosten großgezüchtet hätte. Sie schafft für seine wechselnden Verwertungsbedürfnisse das stets bereite exploitable Menschenmaterial, unabhängig von den Schranken der wirklichen Bevölkerungszunahme.

Capital needs such a reserve army especially because capital accumulation can suddenly expand:

With accumulation, and the development of the productive powers of labor that accompanies it, capital's power of sudden expansion also grows; it grows, not merely because the elasticity of the capital already functioning increases, not merely because the absolute wealth of society expands (of which capital only forms an elastic part), not merely because credit, under every special stimulus, at once places an unusual part of this wealth at the disposal of production in the form of additional capital; it grows also because the technical conditions of the production process themselves—machinery, means of transport, etc.—make it possible that surplus product is rapidly transformed on a large scale into additional means of production.

Mit der Akkumulation und der sie begleitenden Entwicklung der Produktivkraft der Arbeit wächst die plötzliche Expansionskraft des Kapitals, nicht nur, weil die Elastizität des funktionierenden Kapitals wächst, und der absolute Reichtum, wovon das Kapital nur einen elastischen Teil bildet, nicht nur, weil der Kredit, unter jedem besondern Reiz, im Umsehn ungewöhnlichen Teil dieses Reichtums der Produktion als Zusatzkapital zur Verfügung stellt. Die technischen Bedingungen des Produktionsprozesses selbst, Maschinerie, Transportmittel usw. ermöglichen, auf größter Stufenleiter, die rascheste Verwandlung von Mehrprodukt in zuschüssige Produktionsmittel.

Marx gives two examples. One is rapid expansion of particular industries:

The mass of social wealth, overflowing with the advance of accumulation and capable of being transformed into additional capital, thrusts itself frantically into old branches of production whose markets suddenly expand, or into newly formed branches, such as railways, etc., which now become necessary due to the development of the old branches.

Die mit dem Fortschritt der Akkumulation überschwellende und in Zusatzkapital verwandelbare Masse des gesellschaftlichen Reichtums drängt sich mit Frenesie in alte Produktionszweige, deren Markt sich plötzlich erweitert, oder in neu eröffnete, wie Eisenbahnen usw., deren Bedürfnis aus der Entwicklung der alten entspringt.

This first example is not necessarily related to the business cycle. It may be inter-industry movements, which are not readily visible in the usual statistics. Such rapid adjustments would not be possible without the reserve army:

In all such cases, there must be the possibility of suddenly throwing great masses of men into the decisive areas without affecting the scale of production in other spheres. The surplus population supplies these masses.

In allen solchen Fällen müssen große Menschenmassen plötzlich und ohne Abbruch der Produktionsleiter in andren Sphären auf die entscheidenden Punkte werfbar sein. Die Übervölkerung liefert sie.

Marx's second example is the business cycle.

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The path characteristically described by modern industry, which takes the form of a decennial cycle (interrupted by smaller oscillations) of periods of average activity, production at high pressure, crisis, and stagnation, depends on the constant formation, the greater or lesser absorption and the reconstitution of the industrial reserve army or surplus population.

The business cycle not only needs overpopulation, it also generates it:

In their turn, the varying phases of the industrial cycle recruit the surplus population, and become one of the most energetic agencies for its reproduction.

Now a more systematic development of the business cycle. Going back in history, the business cycle was not possible during the infancy of the capitalist mode of production:

627:0b/oa This peculiar cyclical path of modern industry, which occurs in no earlier period of human history, was also impossible when capitalist production was in its infancy. The composition of capital at that time underwent only very gradual changes. By and large, therefore, the proportional growth in the demand for labor has corresponded to the accumulation of capital. Even though the advance of accumulation was slow in comparison with the modern epoch, it came up against the natural bounds of the exploitable working population—bounds which could only be swept away by violent means, as we shall discuss later.

Der charakteristische Lebenslauf der modernen Industrie, die Form eines durch kleinere Schwankungen unterbrochenen zehnjährigen Zyklus von Perioden mittlerer Lebendigkeit, Produktion unter Hochdruck, Krise und Stagnation, beruht auf der beständigen Bildung, größeren oder geringeren Absorption und Weiterbildung der industriellen Reservearmee oder Übervölkerung.

Ihrerseits rekrutieren die Wechselfälle des industriellen Zyklus die Übervölkerung und werden zu einem ihrer energischsten Reproduktionsagentien.

661:2/o Dieser eigentümliche Lebenslauf der modernen Industrie, der uns in keinem frühern Zeitalter der Menschheit begegnet, war auch in der Kindheitsperiode der kapitalistischen Produktion unmöglich. Die Zusammensetzung des Kapitals veränderte sich nur sehr allmählich. Seiner Akkumulation entsprach also im Ganzen verhältnismäßiges Wachstum der Arbeitsnachfrage. Langsam wie der Fortschritt seiner Akkumulation, verglichen mit der modernen Epoche, stieß er auf Naturschranken der exploitablen Arbeiterbevölkerung, welche nur durch später zu erwähnende Gewaltmittel wegräumbar waren.

Marx writes here “bounds” instead of “limits” because limits are

intrinsic, while bounds are imposed from the outside. The

limits of the growth of the working population are bounds for capital.

Question 1264 Which violent means did capital use in its infancy to sweep away the bounds imposed on its accumulation by the natural limits of the exploitable working population? 2013fa, 2012fa, 2010fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa.

Dialectics of the business cycle: expansions produce contractions.

The expansion by fits and starts of the scale of production is the precondition for its equally sudden contraction; the latter again evokes the former, but the former is impossible without disposable human material, without an increase in the number of work-

Die plötzliche und ruckweise Expansion der Produktionsleiter ist die Voraussetzung ihrer plötzlichen Kontraktion; letztere ruft wieder die erstere hervor, aber die erstere ist unmöglich ohne disponibles Menschenmaterial, ohne eine vom absoluten Wachstum

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ers, which must occur independently of the absolute growth of the population.

↑ This can be cast in terms of Bhaskar's four-step dialectic, which consists of four steps starting with an absence: Surplus-population $\Rightarrow$ sudden expansions $\Rightarrow$ sudden contractions $\Rightarrow$ more surplus population. This is a regressive dialectic. It does not remove the original absence but ends up digging the hole deeper from which it started.

This increase is effected by the simple process that constantly 'sets free' a part of the working class; by methods which lessen the number of workers employed in proportion to the increased production. Modern industry's whole form of motion therefore depends on the continuous transformation of a part of the working population into unemployed or semi-employed 'hands'.

der Bevölkerung unabhängige Vermehrung von Arbeitern.

Sie wird geschaffen durch den einfachen Prozeß, der einen Teil der Arbeiter beständig „freisetzt“, durch Methoden, welche die Anzahl der beschäftigten Arbeiter im Verhältnis zur vermehrten Produktion vermindern. Die ganze Bewegungsform der modernen Industrie erwächst also aus der beständigen Verwandlung eines Teils der Arbeiterbevölkerung in unbeschäftigte oder halbbeschäftigte Hände.

Next: the business cycle is rooted in industrial production, not in the credit sphere:

The superficiality of political economy shows itself among others in the fact that it views the expansion and contraction of credit as the cause of the periodic alternations in the industrial cycle, whereas it is a mere symptom of them.

Die Oberflächlichkeit der politischen Ökonomie zeigt sich u.a. darin, daß sie die Expansion und Kontraktion des Kredits, das bloße Symptom der Wechselperioden des industriellen Zyklus, zu deren Ursache macht.

Now periodicity, which makes it difficult to see what is the cause and what the effect:

Just as the heavenly bodies always repeat a certain movement, once they have been flung into it, so also does social production, once it has been flung into this movement of alternate expansion and contraction. Effects become causes in their turn, and the various vicissitudes of the whole process, which always reproduces its own conditions, take on the form of periodicity.

Ganz wie Himmelskörper, einmal in eine bestimmte Bewegung geschleudert, dieselbe stets wiederholen, so die gesellschaftliche Produktion, sobald sie einmal in jene Bewegung wechselnder Expansion und Kontraktion geworfen ist. Wirkungen werden ihrerseits zu Ursachen und die Wechselfälle des ganzen Prozesses, der seine eigenen Bedingungen stets reproduziert, nehmen die Form der Periodizität an.

The French edition has here an insert which reflects back to 627:0b/oa in order to show what processes were necessary before business cycles could start:

[But only after mechanical industry had struck root so deeply that it exerted a preponderant influence on the whole of national production; only after foreign trade began to predominate over internal trade, thanks to mechanical industry; only after the world market had successively annexed extensive areas of the New World, Asia and Australia; and finally, only after a sufficient number of industrial nations had entered the arena—only after all this had happened can one date

[Aber erst von der Zeit an, als die mechanische Industrie so tiefe Wurzeln geschlagen hatte, daß sie auf die ganze nationale Produktion einen überwiegenden Einfluß ausübte; als durch sie der Außenhandel dem Binnenhandel den Rang abzulaufen hegann; als sich der Weltmarkt sukzessive ausgedehnter Gebiete in der neuen Welt, in Asien und in Australien bemächtigte; als schließlich die industriellen Nationen, die auf die Arena traten, zahlreich genug ge-

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the repeated self-perpetuating cycles, whose successive phases embrace years, and always culminate in a general crisis, which is the end of one cycle and the starting-point of another. Until now the duration of these cycles has been ten or eleven years, but there is no reason to consider this duration as constant. On the contrary, we ought to conclude, on the basis of the laws of capitalist production as we have just expounded them, that the duration is variable, and that the length of the cycles will gradually diminish.]

worden waren—erst von dieser Zeit an datierten jene sich stets wiedererzeugenden Zyklen, deren aufeinanderfolgende Phasen Jahre umfassen und die immer hinauslaufen auf eine allgemeine Krise, die Ende eines Zyklus und Ausgangspunkt eines neuen ist. Bis jetzt ist die periodische Dauer solcher Zyklen zehn oder elf Jahre, aber es gibt keinerlei Grund, diese Zahl als konstant zu betrachten. Im Gegenteil, aus den Gesetzen der kapitalistischen Produktion, wie wir sie eben entwickelt haben, muß man schließen, daß sie variabel ist und daß die Periode der Zyklen sich stufenweise verkürzen wird.]

Now Marx discusses how the economists thought about business cycle and surplus-population.

When this periodicity has once become consolidated, even political economy sees that the production of a relative surplus population—i.e. a population surplus in relation to capital's average requirements for valorization—is a necessary condition for modern industry.

Ist letztere einmal konsolidiert, so begreift selbst die politische Ökonomie die Produktion einer relativen, d.h. mit Bezug auf das mittlere Verwertungsbedürfnis des Kapitals überschüssigen Bevölkerung als Lebensbedingung der modernen Industrie.

First Merivale:

627:0c–629:1 'Suppose,' says H. Merivale, formerly Professor of Political Economy at Oxford, subsequently employed at the Colonial Office,

662:1/o „Gesetzt,“ sagt H. Merivale, früher Professor der politischen Ökonomie zu Oxford, später Beamter des englischen Kolonialministeriums,

‘suppose that, on the occasion of some of these crises, the nation were to rouse itself to the effort of getting rid by emigration of some hundreds of thousands of superfluous arms, what would be the consequence? That, at the first returning demand for labor, there would be a deficiency. However rapid reproduction may be, it takes, at all events, the space of a generation to replace the loss of adult labor. Now, the profits of our manufacturers depend mainly on the power of making use of the prosperous moment when demand is brisk, and thus compensating themselves for the interval during which it is slack. This power is secured to them only by the command of machinery and of manual labor. They must have hands ready by them, they must be able to increase the activity of their operations when required, and to slacken it again, according to the state of the market, or they cannot possibly maintain that pre-eminence in the race of competition on which the wealth of the coun-

„gesetzt, bei Gelegenheit einer Krise raffe die Nation sich zu einer Kraftanstrengung auf, um durch Emigration einige 100 000 überflüssige Arme loszuwerden, was würde die Folge sein? Daß bei der ersten Wiederkehr der Arbeitsnachfrage ein Mangel vorhanden wäre. Wie rasch immer die Reproduktion von Menschen sein mag, sie braucht jedenfalls den Zwischenraum einer Generation zum Ersatz erwachsener Arbeiter. Nun hängen die Profite unsrer Fabrikanten hauptsächlich von der Macht ab, den günstigen Moment lebhafter Nachfrage zu exploitierten und sich so für die Periode der Erlahmung schadlos zu halten. Diese Macht ist ihnen nur gesichert durch Kommando über Maschinerie und Handarbeit. Sie müssen disponible Hände vorfinden; sie müssen fähig sein, die Aktivität ihrer Operationen wenn nötig höher zu spannen oder abzuspannen, je nach dem Stand des Markts, oder sie können platterdings nicht in der Hetzjagd der Konkurrenz das Übergewicht behaupten, auf das der

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try is founded.’⁸⁰

⁸⁰ H. Merivale, *Lectures on Colonization and Colonies*, London, 1841, Vol. I, p. 146.

Next Malthus:

Even Malthus recognizes that a surplus population is necessary for modern industry, although he explains the surplus population, in his narrow fashion, by the excessive growth of the working population, instead of seeing that capital makes part of the working population relatively superfluous. He says:

‘Prudential habits with regard to marriage, carried to a considerable extent among the laboring class of a country mainly depending upon manufactures and commerce, might injure it ... From the nature of a population, an increase of laborers cannot be brought into market in consequence of a particular demand till after the lapse of 16 or 18 years, and the conversion of revenue into capital, by saving, may take place much more rapidly; a country is always liable to an increase in the quantity of the funds for the maintenance of labor faster than the increase of population.’⁸¹

⁸¹ [Mal36, pp. 215, 319, 320] In this work Malthus finally discovers, with the help of Sismondi, the beautiful trinity of capitalist production: over-production, over-population and over-consumption. Three very delicate monsters, indeed! Cf. F. Engels, *Outlines of a Critique of Political Economy*, [mecw3]437–440:1

Finally the “old maid” Harriet Martineau:

After declaring that the constant production of a relative surplus population of workers is a necessity of capitalist accumulation, political economy very aptly adopts the shape of an old maid and puts into the mouth of her ideal capitalist the following words addressed to the ‘redundant’ workers who have been thrown onto the streets by their own creation of additional capital:

‘We manufacturers do what we can for you, whilst we are increasing that capital on which you must subsist, and you must do the rest by accommodating your numbers to the means of subsistence.’⁸²

Reichtum dieses Landes gegründet ist.’⁸⁰

⁸⁰ H. Merivale, „Lectures on Colonization and Colonies“, Lond. 1841 and 1842, v. I, p. 146.

663:1–2 Selbst Malthus erkennt in der Übervölkerung, die er, nach seiner bornierten Weise, aus absolutem Überwuchs der Arbeiterbevölkerung, nicht aus ihrer relativen Überzähligmachung deutet, eine Notwendigkeit der modernen Industrie. Er sagt:

„Weise Gewohnheiten in bezug auf die Ehe, wenn zu einer gewissen Höhe getrieben unter der Arbeiterklasse eines Landes, das hauptsächlich von Manufaktur und Handel abhängt, würden ihm schädlich sein... Der Natur der Bevölkerung gemäß kann ein Zuwachs von Arbeitern nicht zu Markt geliefert werden, infolge besondrer Nachfrage, bis nach Verlauf von 16 oder 18 Jahren, und die Verwandlung von Revenue in Kapital durch Ersparung kann sehr viel rascher Platz greifen; ein Land ist stets dem ausgesetzt, daß sein Arbeitsfonds rascher wächst als die Bevölkerung.“⁸¹

⁸¹ [Mal36, pp. 215, 319, 320] In diesem Werk entdeckt Malthus endlich, vermittelt Sismondis, die schöne Dreieinigkeit der kapitalistischen Produktion: Überproduktion—Überpopulation—Überkonsumtion, three very delicate monsters, indeed! Vgl. F. Engels, „Umriss zu einer Kritik der Nationalökonomie“, [mecw3]437–440:1.

664:1–2 Nachdem die politische Ökonomie so die beständige Produktion einer relativen Übervölkerung von Arbeitern für eine Notwendigkeit der kapitalistischen Akkumulation erklärt hat, legt sie, und zwar adäquat in der Figur einer alten Jungfer, dem „beau ideal“ ihres Kapitalisten folgende Worte an die durch ihre eigne Schöpfung von Zusatzkapital aufs Pflaster geworfenen „Überzähligen“ in den Mund:

„Wir Fabrikanten tun für euch, was wir können, indem wir das Kapital vermehren, von dem ihr subsistieren müßt; und ihr müßt das übrige tun, indem ihr eure Zahl den Subsistenzmitteln anpaßt.“⁸²

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⁸² Harriet Martineau, 'A Manchester Strike', 1832, p. 101.

⁸² Harriet Martineau, „The Manchester Strike“, 1832, p. 101.

Footnote 82 is a reference to [Mar37, p. 101]. Harriet Martineau's fictional capitalist had the gall to make these statements directly to the 'redundant' workers, who had created this redundancy through their own labor. The dialectic that the worker's dependence on capital is created by the workers' own product creates here an explosive situation.

The concluding remarks of this passage, Subsection [3.b], tie into its opening remarks at the beginning of 626:1/oa:

629:2 Capitalist production can by no means content itself with the quantity of disposable labor-power which the natural increase of population yields. It requires for its unrestricted activity an industrial reserve army that is independent of these natural bounds.

664:3 Der kapitalistischen Produktion genügt keineswegs das Quantum disponibler Arbeitskraft, welches der natürliche Zuwachs der Bevölkerung liefert. Sie bedarf zu ihrem freien Spiel einer von dieser Naturschranke unabhängigen industriellen Reservearmee.

It should be "natural bounds," since nature (natural population

growth) imposes outside bounds on capital accumulation. Both

Moore-Aveling and Fowkes say incorrectly "natural limits."

3.c. [Link between Variable Capital, Employment, and Labor Performed]

The amount of the variable capital advanced, the number of laborers hired, and the amount of labor performed are not necessarily proportional, and the tie between them becomes weaker as accumulation proceeds. As Marx summarizes it in 633:2/o, there is a tendency to make the supply of labor independent of the supply of labor-power. Marx brings four different mechanisms acting in four different sites: economic motives of the capitalists, technology, reproduction of labor-power, and the labor market.

629:3 We have so far assumed that the increase or diminution of the number of workers employed corresponds precisely to the increase or diminution of the variable capital.

664:4 Bisher wurde unterstellt, daß der Zu- oder Abnahme des variablen Kapitals genau die Zu- oder Abnahme der beschäftigten Arbeiterzahl entspricht.

The first mechanism is: capitalists are motivated to get more labor out of the same number of workers instead of hiring more workers, because hiring more workers requires higher outlays of constant capital than having the same number of workers working longer hours. Presumably Marx means here fixed capital, buildings and machinery. The more the production process is mechanized, the more relevant is this consideration.

629:4 But the number of workers under the command of capital may remain the same, or even fall, while the variable capital increases. This is the case if the individual worker provides more labor, and his wages thus increase, although the price of labor remains the same or even falls, only more slowly than the mass of labor rises. Increase of variable capital, in this case, becomes an index of more labor, but not of more work-

664:5 Bei gleichbleibender oder selbst verminderter Zahl der von ihm kommandierten Arbeiter wächst jedoch das variable Kapital, wenn der individuelle Arbeiter mehr Arbeit liefert und daher sein Arbeitslohn wächst obgleich der Arbeitspreis gleichbleibt oder selbst sinkt, nur langsamer, als die Arbeitsmasse steigt. Der Zuwachs des variablen Kapitals wird dann Index von mehr Arbeit, aber nicht von mehr

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ers employed. It is the absolute interest of every capitalist to extort a given quantity of labor out of a smaller rather than a greater number of workers, if the cost is about the same. If he has to hire more workers, the outlay of constant capital increases in proportion to the mass of labor set in motion; if he gets more labor out of the same number of workers, that increase is much smaller. The more extended the scale of production, the more decisive is this motive. Its force increases with the accumulation of capital.

↑ The workers who have to work longer are getting higher wages for this (and often they do consider this as a benefit). Through these higher wages the workers are able to capture part of the economic benefits of mechanisation for themselves.

Question 1269 *Why does the capitalist have the motive to get the same labor-time out of a smaller number of workers? Which economic facts did Marx refer to, and which additional economic facts go in the same direction nowadays?* 2013fa, 2012fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1998WI.

There is also another mechanism, which is of a technological rather than economic nature. Or maybe one should say in this mechanism the economics is built into the production process, it is real subsumption rather than formal subsumption: Machinery controls the laborer better and organizes the labor process in such a way that it can be sped up. Because of the “invisible” technological nature of this coercion, the workers cannot capture any of the benefits for themselves, they are simply forced to work more without getting higher wages.

629:5 We have seen that the development of the capitalist mode of production, and of the productive powers of labor—which is at once the cause and the effect of accumulation—enables the capitalist, with the same outlay of variable capital, to set in motion more labor by greater exploitation (extensive or intensive) of each individual labor-power.

↓ A third mechanism allows labor to be obtained from labor-power that is less expensive. Skilled labor can be replaced by unskilled labor, men by women, adults by children:

We have further seen that the capitalist buys with the same capital a greater mass of labor-power, as he progressively replaces skilled workers by less skilled, mature labor-power by immature, male by female, that of adults by that of young persons or children.

Next paragraph gives a summary of all three effects so far.

629:6 On the one hand, therefore, with the progress of accumulation a larger vari-

beschäftigten Arbeitern. Jeder Kapitalist hat das absolute Interesse, ein bestimmtes Arbeitsquantum aus kleinerer, statt ebenso wohlfeil oder selbst wohlfeiler aus größerer Arbeiterzahl auszupressen. In dem letzten Fall wächst die Auslage von konstantem Kapital verhältnismäßig zur Masse der in Fluß gesetzten Arbeit, im ersten Fall viel langsamer. Je größer die Stufenleiter der Produktion, desto entscheidender dies Motiv. Seine Wucht wächst mit der Akkumulation des Kapitals.

664:6/o Man hat gesehen, daß die Entwicklung der kapitalistischen Produktionsweise und Produktivkraft der Arbeit—zugleich Ursache und Wirkung der Akkumulation—den Kapitalisten befähigt, mit derselben Auslage von variablem Kapital mehr Arbeit durch größere extensive oder intensive Exploitation der individuellen Arbeitskräfte flüssig zu machen.

Man hat ferner gesehen, daß er mit demselben Kapitalwert mehr Arbeitskräfte kauft, indem er progressiv geschicktere Arbeiter durch ungeschicktere, reife durch unreife, männliche durch weibliche, erwachsene Arbeitskraft durch jugendliche oder kindliche verdrängt.

665:1 Einerseits macht also, im Fortgang der Akkumulation, größeres variables Kapi-

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able capital sets more labor in motion without enlisting more workers; on the other, a variable capital of the same magnitude sets in motion more labor with the same mass of labor-power; and, finally, a greater number of inferior labor-powers is set in motion by the displacement of more skilled labor-powers.

tal mehr Arbeit flüssig, ohne mehr Arbeiter zu werben, andererseits macht variables Kapital von derselben Größe mehr Arbeit mit derselben Masse Arbeitskraft flüssig und endlich mehr niedere Arbeitskräfte durch Verdrängung höherer.

This means, the relative surplus population is produced faster than the technical innovations alone would suggest. The outlay of variable capital is not a good indicator for the labor performed, and capital is able to appropriate more labor without drawing down the relative surplus-population.

Question 1271 *Why does the link between variable capital, employment, and labor performed become weaker as accumulation proceeds?* 2013fa, 2011fa, 2010fa, 2007SP.

Not only the relationship between variable capital and labor, but also that between the changes in productive power and the release of labor become more unfavorable for the worker:

630:1/o The production of a relative surplus population, or the setting free of workers, therefore proceeds even more rapidly than the technical transformation of the process of production that accompanies the advance of accumulation and is accelerated by it, and more rapidly than the corresponding diminution of the variable part of capital as compared with the constant.

665:2/o Die Produktion einer relativen Übervölkerung oder die Freisetzung von Arbeitern geht daher noch rascher voran als die ohnehin mit dem Fortschritt der Akkumulation beschleunigte technische Umwälzung des Produktionsprozesses und die entsprechende proportionelle Abnahme des variablen Kapitalteils gegen den konstanten.

There is an additional effect, which only kicks in after the other effects have already been successful at creating a relative surplus population: the threat of unemployment forces those who are employed to work harder, which puts still more workers on the street:

If the means of production, as they increase in extent and effective power, become to a lesser extent means for employing workers, this relation is itself in turn modified by the fact that in proportion as the productive powers of labor increase, capital increases its supply of labor more quickly than its demand for workers.

Wenn die Produktionsmittel, wie sie an Umfang und Wirkungskraft zunehmen, in geringerem Grad Beschäftigungsmittel der Arbeiter werden, wird dies Verhältnis selbst wieder dadurch modifiziert, daß im Maß, wie die Produktivkraft der Arbeit wächst, das Kapital seine Zufuhr von Arbeit rascher steigert als seine Nachfrage nach Arbeitern.

By “capital’s supply of labor” Marx means the laborers replaced by machinery.

The over-work of the employed part of the working class swells the ranks of its reserve, while, conversely, the greater pressure that the reserve by its competition exerts on the employed workers forces them to submit to over-work and subjects them to the dictates of capital. The condemnation of one part of the working class to enforced idleness by

Die Überarbeit des beschäftigten Teils der Arbeiterklasse schwellt die Reihen ihrer Reserve, während umgekehrt der vermehrte Druck, den die letztere durch ihre Konkurrenz auf die erstere ausübt, diese zur Überarbeit und Unterwerfung unter die Diktate des Kapitals zwingt. Die Verdammung eines Teils der Arbeiterklasse zu erzwungenem

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the over-work of the other part, and vice versa, becomes a means of enriching the individual capitalists,⁸³ and accelerates at the same time the production of the industrial reserve army on a scale corresponding with the progress of social accumulation.

Müßiggang durch Überarbeit des andren Teils und umgekehrt, wird Bereicherungsmittel des einzelnen Kapitalisten⁸³ und beschleunigt zugleich die Produktion der industriellen Reservearmee auf einem dem Fortschritt der gesellschaftlichen Akkumulation entsprechenden Maßstab.

Footnote 83 documents the existence of overwork in the midst of unemployment.

⁸³ Even in the cotton famine of 1863, we find, in a pamphlet by the cotton-spinning operatives of Blackburn, fierce denunciations of over-work, which of course only affected adult male workers, as a result of the Factory Act. 'The adult operatives at this mill have been asked to work from 12 to 13 hours per day, while there are hundreds who are compelled to be idle who would willingly work partial time, in order to maintain their families and save their brethren from a premature grave through being over-worked . . . We', it goes on to say, 'would ask if the practice of working overtime by a number of hands, is likely to create a good feeling between masters and servants. Those who are worked overtime feel the injustice equally with those who are condemned to forced idleness. There is in the district almost sufficient work to give to all partial employment if fairly distributed. We are only asking what is right in requesting the masters generally to pursue a system of short hours, particularly until a better state of things begins to dawn upon us, rather than to work a portion of the hands overtime, while others, for want of work, are compelled to exist upon charity' (Reports of the Inspectors of Factories . . . 31 October 1863, p. 8). The author of the Essay on Trade and Commerce grasps the effect of a relative surplus population on the employed workers with his usual unerring bourgeois instinct. 'Another cause of idleness in this kingdom is the want of a sufficient number of laboring hands . . . Whenever from an extraordinary demand for manufactures, labor grows scarce, the laborers feel their own consequence, and will make their masters feel it likewise—it is amazing; but so depraved are the dispositions of these people, that in such cases a set of workmen have combined to distress the employer by idling a whole day together' (Essay, etc., pp. 27–8). Those fellows were actually asking for a wage-increase!

⁸³ Selbst während der Baumwollnot von 1863 findet man in einem Pamphlet der Baumwollspinner von Blackburn heftige Denunziation gegen die Überarbeit, die kraft des Fabrikgesetzes natürlich nur erwachsne männliche Arbeiter traf. „Man verlangte in dieser Fabrik von den erwachsenen Arbeitern eine zwölf- bis dreizehnstündige Arbeit täglich, obwohl es Hunderte gibt, die zum Müßiggang gezwungen sind, aber gern einen Teil der Arbeitszeit arbeiten möchten, um ihre Familien erhalten zu können und ihre Arbeitsbrüder vor einem vorzeitigen Tode infolge Überarbeit zu bewahren.“ „Wir“, heißt es weiter, „möchten fragen, ob diese Praxis, Überzeit zu arbeiten, irgendwie erträgliche Verhältnisse zwischen Meistern und ‚Dienern‘ möglich macht. Die Opfer der Überarbeit fühlen die Unbill ebensosehr als die dadurch zu erzwungnem Müßiggang Verdamnten (condemned to forced idleness). In diesem Distrikt reicht das zu verrichtende Werk hin, um alle teilweise zu beschäftigen, würde die Arbeit billig verteilt. Wir verlangen nur ein Recht, indem wir die Meister auffordern, allgemein nur kurze Zeit zu arbeiten, wenigstens solange der jetzige Stand der Dinge währt, statt einen Teil zu überarbeiten, während der andre durch Arbeitsmangel gezwungen wird, von der Wohltätigkeit seine Existenz zu fristen.“ („Reports of Insp. of Fact., 31st Oct. 1863“ p. 8.)—Die Wirkung einer relativen Übervölkerung auf die beschäftigten Arbeiter begreift der Verfasser des „Essay on Trade and Commerce“ mit seinem gewohnten unfehlbaren Bourgeoisinstinkt. „Eine andre Ursache der Faulenzerei (idleness) in diesem Königreich ist der Mangel einer hinreichenden Anzahl arbeitender Hände. Sooft durch irgendeine ungewöhnliche Nachfrage für Fabrikate die Arbeitsmasse ungenügend wird, fühlen die Arbeiter ihre eigne Wichtigkeit und wollen sie ihren Meistern ebenfalls fühlbar machen; es ist erstaunlich; aber so depraviert ist die Gesinnung dieser Kerle, daß in solchen Fällen Gruppen von Arbeitern sich kombiniert haben, um ihre Mei-

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ster dadurch in Verlegenheit zu setzen, daß sie einen ganzen Tag durch faulenzten.“ (Essay etc., p. 27, 28.) Die Kerle verlangten nämlich Lohnerhöhung.

↓ Now Marx's ideas of a rational apportioning of productive labor.

The importance of this element in the formation of the relative surplus population is shown by the example of England. Her technical means for the 'saving' of labor are colossal. Nevertheless, if tomorrow morning labor were universally to be reduced to a rational amount, and proportioned to the different sections of the working class according to age and sex, the available working population would be absolutely insufficient to carry on the nation's production on its present scale.

Wie wichtig dies Moment in der Bildung der relativen Übervölkerung, beweist z.B. England. Seine technischen Mittel zur „Ersparung“ von Arbeit sind kolossal. Dennoch, würde morgen allgemein die Arbeit auf ein rationelles Maß beschränkt und für die verschiedenen Schichten der Arbeiterklasse wieder entsprechend nach Alter und Geschlecht abgestuft, so wäre die vorhandene Arbeiterbevölkerung absolut unzureichend zur Fortführung der nationalen Produktion auf ihrer jetzigen Stufenleiter.

↑ The idea of apportioning labor differently according to gender would no longer be considered progressive today. ↓ At the end an interesting remark about unproductive labor: The great majority of the now 'unproductive' workers would have to be turned into 'productive' ones.

Die große Mehrheit der jetzt „unproduktiven“ Arbeiter müßte in „produktive“ verwandelt werden.

3.d. [The Movement of Wages]

Whereas the *level* of wages is determined by the value of labor-power, its *changes* are determined by demand and supply. Note that modern mathematical economics is unable to separate the forces determining the *level* of wages from those determining the *changes* in wages. If the changes of wages are known at every point in time, the solution of a simple differential equation gives the levels. In other words, in the mathematics of continuously differentiable functions, levels are reducible to changes. Marx's thinking is not constrained by this mathematical theorem. Marx takes it for granted that the forces which determine the levels may be quite different from and are not necessarily reducible to the forces which determine the changes. Modern econometrics follows a similar logic as Marx when it attempts to separate levels from changes in cointegration or regression on a limited frequency band.

On order to understand the changes in wages, Marx first looks at the supply of labor, then the demand, and then the relationship between supply and demand. The *supply* is determined not by the absolute size of the working class, but by its composition, i.e., by the relationship between active workers and "reserve army."

631:1/o Overall, the general movements of wages are exclusively regulated by expansion and contraction of the industrial reserve army, which in turn correspond to the periodic alternations of the industrial cycle. The movement of wages is not therefore determined by the variations of the absolute numbers of the working population, but by the varying proportions in which the work-

666:1/o Im großen und ganzen sind die allgemeinen Bewegungen des Arbeitslohns ausschließlich reguliert durch die Expansion und Kontraktion der industriellen Reservearmee, welche dem Periodenwechsel des industriellen Zyklus entsprechen. Sie sind also nicht bestimmt durch die Bewegung der absoluten Anzahl der Arbeiterbevölkerung, sondern durch das wechselnde Verhältnis,

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ing class is divided into an active army and a reserve army, by the increase or diminution in the relative amount of the surplus population, by the extent to which it is alternately absorbed and set free.

worin die Arbeiterklasse in aktive Armee und Reservearmee zerfällt, durch die Zunahme und Abnahme des relativen Umfangs der Übervölkerung, durch den Grad, worin sie bald absorbiert, bald wieder freigesetzt wird.

Question 1272 Marx writes in 790:1/o: “The general movements of wages are exclusively regulated by expansion and contraction of the industrial reserve army.” Does this mean he has abandoned the labor theory of value? [2012fa](#).

↑ Marx assumes this is an empirical fact, this is how the surface relations play out. ↓ The first half of the next sentence alludes to the evidence he has in mind: the movement of wages over the business cycle. The rest of this over-long sentence is a polemic against those who believe wages are determined by levels of population instead of the composition of the population into active and reserve army:

For modern industry, with its decennial cycles and periodic phases, disturbed by irregular oscillations following each other more and more quickly as accumulation advances—it would be a beautiful law which would make the movement of capital dependent on the movement of the population, instead of regulating demand and supply of labor by the expansion and contraction of capital, i.e. by the level of capital’s valorization requirements at the moment, the labor-market sometimes appearing relatively under-supplied because capital is expanding, and sometimes relatively over-supplied because it is contracting.

Für die moderne Industrie mit ihrem zehnjährigen Zyklus und seinen periodischen Phasen, die außerdem im Fortgang der Akkumulation durch stets rascher aufeinander folgende unregelmäßige Oszillationen durchkreuzt werden, wäre es in der Tat ein schönes Gesetz, welches die Nachfrage und Zufuhr von Arbeit nicht durch die Expansion und Kontraktion des Kapitals, also nach seinen jedesmaligen Verwertungsbedürfnissen regelte, so daß der Arbeitsmarkt bald relativ untervoll erscheint weil das Kapital sich expandiert, bald wieder übertoll, weil es sich kontrahiert, sondern umgekehrt die Bewegung des Kapitals von der absoluten Bewegung der Bevölkerungsmenge abhängig machte.

↑ Yes, this was only one sentence. During his polemic, Marx makes an important assertion: since wages depend on the composition of the working population instead of its absolute size, this means that wages are “regulated according to the valorization needs of capital.” This makes capital the independent force. By contrast, if wages were dependent on the absolute size of the working population, then the accumulation of capital would be subordinate to the growth of the population. The purported laws of population which make wages dependent on absolute population size are sarcastically called “beautiful” because these laws, despite their theoretical coherence and “beauty,” are utterly unable to explain the facts. In Marx’s mind the facts are obvious: capital accumulation is *not* subordinate to the growth of the population.

Question 1274 Marx says twice that the (Malthusian) law of population is a “beautiful” law. Why does he use the word “beautiful” here? [2010fa](#).

Now comes a closer description of the “iron law of wages,” a theory with which Marx does *not* agree, although he concedes that it has a true kernel. Note the assumption that higher wages always lead to more workers, i.e., no Malthusian limits:

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Yet, according to the dogma of the economists, the movement of capital depends on the movement of the population. Wages rise as a result of the accumulation of capital. Higher wages stimulate the working population to more rapid multiplication, and this goes on until the labor-market becomes over-supplied, and hence capital becomes insufficient in relation to the supply of labor. Wages fall, and now we have the obverse side of the medal. The working population is, little by little, decimated by the fall in wages, so that capital is again in excess in relation to the workers, or, as others explain it, the fall in wages and the corresponding increase in the exploitation of the workers again accelerates accumulation, while, at the same time, the lower wages hold the growth of the working class in check. Then the time comes round again when the supply of labor is less than the demand, wages rise, and so on.

Dies jedoch ist das ökonomische Dogma. Nach demselben steigt infolge der Kapitalakkumulation der Arbeitslohn. Der erhöhte Arbeitslohn spornt zur rascheren Vermehrung der Arbeiterbevölkerung, und diese dauert fort, bis der Arbeitsmarkt überfüllt, also das Kapital relativ zur Arbeiterzufuhr unzureichend geworden ist. Der Arbeitslohn sinkt, und nun die Kehrseite der Medaille. Durch den fallenden Arbeitslohn wird die Arbeiterbevölkerung nach und nach dezimiert, so daß ihr gegenüber das Kapital wieder überschüssig wird, oder auch, wie andre es erklären, der fallende Arbeitslohn und die entsprechende erhöhte Exploitation des Arbeiters beschleunigt wieder die Akkumulation, während gleichzeitig der niedere Lohn das Wachstum der Arbeiterklasse in Schach hält. So tritt wieder das Verhältnis ein, worin die Arbeitszufuhr niedriger als die Arbeitsnachfrage, der Lohn steigt usw.

Marx does not deny the existence of the mechanisms postulated in this law, but he says they would be far too slow:

This would indeed be a beautiful form of motion for developed capitalist production! Before the rise in wages could produce any positive increase of that part of the population actually able to work, the deadline would long since have passed within which the industrial campaign would have to have been carried through, and the battle fought to a conclusive finish.

Eine schöne Bewegungsmethode dies für die entwickelte kapitalistische Produktion! Bevor infolge der Lohnerhöhung irgendein positives Wachstum der wirklich arbeitsfähigen Bevölkerung eintreten könnte, wäre die Frist aber und abermal abgelaufen, worin der industrielle Feldzug geführt, die Schlacht geschlagen und entschieden sein muß.

Now Marx gives an example how absurd it would be to postulate such a law:

632:1 Between 1849 and 1859 a rise of wages which was in practice merely nominal, although it was accompanied by a fall in the price of corn, took place in the English agricultural districts. In Wiltshire, for example, the weekly wage rose from 7s. to 8s.; in Dorsetshire it rose from 7s. or 8s. to 9s., and so on. This was the result of an unusual exodus of the agricultural surplus population caused by wartime demands, and by the vast extension of railways, factories, mines etc. The lower the wage, the higher is the proportion in which even a very insignif-

667:1/o Zwischen 1849 und 1859 trat, zugleich mit fallenden Getreidepreisen, eine praktisch betrachtet nur nominelle Lohnerhöhung in den englischen Agrikulturdistrikten ein, z.B. in Wiltshire stieg der Wochenlohn von 7 auf 8 sh., in Dorsetshire von 7 oder 8 auf 9 sh. usw. Es war dies Folge des ungewöhnlichen Abflusses der agrikolen Übervölkerung, verursacht durch Kriegsnachfrage, massenhafte Ausdehnung der Eisenbahnbauten, Fabriken, Bergwerke etc. Je niedriger der Arbeitslohn, desto höher drückt sich jedes noch so unbedeuten-

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icant increase is expressed. If the weekly wage, for instance, is 20s. and it rises to 22s., that is a rise of 10 per cent; but if it is only 7s., and it rises to 9s., that is a rise of $28\frac{4}{7}$ per cent, which sounds very fine. Anyway, the farmers howled, and the London Economist, with reference to these starvation wages, prattled quite seriously of ‘a general and substantial advance’.⁸⁴ What did the farmers do now? Did they wait until the agricultural laborers had so increased and multiplied as a result of this splendid remuneration that their wages had to fall again, which is the way things are supposed to happen according to the dogmatic economic brain? No, they introduced more machinery, and in a moment the laborers were ‘redundant’ again to a degree satisfactory even to the farmers. There was now ‘more capital’ laid out in agriculture than before, and in a more productive form. With this the demand for labor fell, not only relatively, but absolutely.

⁸⁴ *Economist*, 21 January 1860.

The “war demand” refers to the Crimean War 1854–56.

de Steigen desselben in Prozentzahlen aus. Ist der Wochenlohn z.B. 20 sh. und steigt er auf 22, so um 10%; ist er dagegen nur 7 sh. und steigt auf 9, so um $28\frac{4}{7}$ %, was sehr erklecklich klingt. Jedenfalls heulten die Pächter und schwatzte sogar der „London Economist“⁸⁴ ganz ernsthaft von „a general and substantial advance“ mit Bezug auf diese Hungerlöhne. Was taten nun die Pächter? Warteten sie, bis die Landarbeiter sich infolge dieser brillanten Zahlung so vermehrt hatten, daß ihr Lohn wieder fallen mußte, wie die Sache sich im dogmatisch ökonomischen Hirn zuträgt? Sie führten mehr Maschinerie ein, und im Umsehn waren die Arbeiter wieder „überzählig“ in einem selbst den Pächtern genügenden Verhältnis. Es war jetzt „mehr Kapital“ in der Agrikultur angelegt als vorher und in einer produktiveren Form. Damit fiel die Nachfrage nach Arbeit nicht nur relativ, sondern absolut.

⁸⁴ „*Economist*“, Jan. 21, 1860.

Question 1275 *Describe the interaction between accumulation of capital and the wage level (under the assumption that the composition of capital remains constant). Why does Marx say that capital is the independent and wages the dependent variable? Show that this relation between accumulation and wages is the relation between the paid and unpaid labor of the same working population.* 2007SP.

How can a theory survive which is so evidently wrong? Because this theory is not entirely a figment of the imagination. It does have a link to practical experience:

632:2/o The above economic fiction confuses the laws that regulate the general movement of wages, or the ratio between the working class—i.e. the total sum of labor-power—and the total social capital, with the laws that distribute the working population over the different spheres of production. If, for example owing to a favorable conjuncture, accumulation in a particular sphere of production becomes especially active, and profits in it, being greater than the average profits, attract additional capital, then of course the demand for labor rises, and wages rise as well. The higher wages

668:1 Jene ökonomische Fiktion verwechselt die Gesetze, welche die allgemeine Bewegung des Arbeitslohns oder das Verhältnis zwischen Arbeiterklasse, d.h. Gesamtarbeitskraft und gesellschaftlichem Gesamtkapital regeln mit den Gesetzen, welche die Arbeiterbevölkerung unter die besondern Produktionssphären verteilen. Wenn z.B. infolge günstiger Konjunktur die Akkumulation in einer bestimmten Produktionssphäre besonders lebhaft, die Profite hier größer als die Durchschnittsprofite, Zuschußkapital dahin drängt, so steigt natürlich Arbeitsnachfrage und Arbeitslohn.

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draw a larger part of the working population into the more favored sphere until it is glutted with laborpower, and wages at length fall again to their average level or below it, if the pressure is too great. At that point the influx of workers into the branch of industry in question not only ceases, but gives place to an outflow of workers. Here the political economist thinks he can grasp the situation, he thinks he can see an absolute diminution of workers accompanying an increase of wages, and a diminution of wages accompanying an absolute increase of workers. But he really sees only the local oscillations of the labor-market in a particular sphere of production—he sees only the phenomena which accompany the distribution of the working population into the different spheres of outlay of capital, according to its varying needs.

Der höhere Arbeitslohn zieht einen größeren Teil der Arbeiterbevölkerung in die begünstigte Sphäre, bis sie mit Arbeitskraft gesättigt ist und der Lohn auf die Dauer wieder auf sein früheres Durchschnittsniveau oder unter dasselbe fällt, falls der Zudrang zu groß war. Dann hört nicht nur die Einwanderung von Arbeitern in den fraglichen Geschäftszweig auf, sie macht sogar ihrer Auswanderung Platz. Hier glaubt der politische Ökonom zu sehn, „wo und wie“ mit Zunahme des Lohns eine absolute Zunahme von Arbeitern, und mit der absoluten Zunahme der Arbeiter eine Abnahme des Lohns, aber er sieht in der Tat nur die lokale Oscillation des Arbeitsmarkts einer besondern Produktionssphäre, er sieht nur Phänomene der Verteilung der Arbeiterbevölkerung in die verschiedenen Anlagesphären des Kapitals, i.e. nach seinen wechselnden Bedürfnissen.

To conclude the discussion of the supply of labor, Marx re-states his own theory:

633:1 The industrial reserve army, during the periods of stagnation and average prosperity, weighs down the active army of workers; during the periods of overproduction and feverish activity, it puts a curb on their pretensions. The relative surplus population is therefore the background against which the law of the demand and supply of labor does its work. It confines the field of action of this law to the limits absolutely convenient to capital's drive to exploit and dominate the workers.

668:2/oo Die industrielle Reservearmee drückt während der Perioden der Stagnation und mittleren Prosperität auf die aktive Arbeiterarmee und hält ihre Ansprüche während der Periode der Überproduktion und des Paroxysmus im Zaum. Die relative Übervölkerung ist also der Hintergrund, worauf das Gesetz der Nachfrage und Zufuhr von Arbeit sich bewegt. Sie zwingt den Spielraum dieses Gesetzes in die der Exploitationsgier und Herrschsucht des Kapitals absolut zusagenden Schranken ein.

Next Marx discusses the *demand* for labor. He must argue here against the apologists who deny that technical progress eliminates jobs.

This is the place to return to one of the great exploits of economic apologetics. It will be remembered that if through the introduction of new machinery, or the extension of old, a portion of variable capital is transformed into constant capital, the economic apologist interprets this operation, which 'fixes' capital and by that very act 'sets free' workers, in exactly the opposite way, pretending that capital is thereby set free for the workers.

668:2/oo Es ist hier der Ort, auf eine der Großtaten der ökonomischen Apologetik zurückzukommen. Man erinnert sich, daß, wenn durch Einführung neuer oder Ausdehnung alter Maschinerie ein Stück variables Kapital in konstantes verwandelt wird, der ökonomische Apologet diese Operation, welche Kapital „bindet“ und ebendadurch Arbeiter „freisetzt“, umgekehrt so deutet, daß sie Kapital für den Arbeiter freisetzt.

↑ This theory was discussed in section 6 of the Machinery chapter.

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Only now can one evaluate the true extent of the effrontery of these apologists. Not only are the workers directly turned out by the machines set free, but so are their future replacements in the rising generation, as well as the additional contingent which, with the usual extension of business on its old basis, would regularly be absorbed. They are now all 'set free' and every new bit of capital looking round for a function can take advantage of them. Whether it attracts them or others, the effect on the general demand for labor will be nil, if this capital is just sufficient to take out of the market as many workers as the machines threw into it. If it employs a smaller number, the number of 'redundant workers' increases; if it employs a greater, the general demand for labor increases only to the extent of the excess of the employed over those 'set free'. The impulse that additional capital seeking an outlet would otherwise have given to the general demand for labor is therefore in every case neutralized until the supply of workers thrown out of employment by the machine has been exhausted. That is to say, the mechanism of capitalist production takes care that the absolute increase of capital is not accompanied by a corresponding rise in the general demand for labor. And the apologist calls this a compensation for the misery, the sufferings, the possible death of the displaced workers during the transitional period when they are banished into the industrial reserve army!

Erst jetzt kann man die Unverschämtheit des Apologeten vollständig würdigen. Was freigesetzt wird, sind nicht nur die unmittelbar durch die Maschine verdrängten Arbeiter, sondern ebenso ihre Ersatzmannschaft und das, bei gewohnter Ausdehnung des Geschäfts auf seiner alten Basis, regelmäßig absorbierte Zuschußkontingent. Sie sind jetzt alle „freigesetzt“, und jedes neue funktionslustige Kapital kann über sie verfügen. Ob es sie oder andre attrahiert, die Wirkung auf die allgemeine Arbeitsnachfrage wird Null sein, solange dies Kapital gerade hinreicht, um den Markt von ebensoviel Arbeitern zu befreien, als die Maschinen auf ihn geworfen. Beschäftigt es eine geringere Zahl, so wächst die Menge der Überzähligen; beschäftigt es eine größere, so wächst die allgemeine Arbeitsnachfrage nur um den Überschuß der Beschäftigten über die „Freigesetzten“. Der Aufschwung, den Anlage suchende Zusatzkapitale sonst der allgemeinen Arbeitsnachfrage gegeben hätten, ist also in jedem Fall insoweit neutralisiert, wie die von der Maschine aufs Pflaster geworfenen Arbeiter reichen. D.h. also, der Mechanismus der kapitalistischen Produktion sorgt dafür, daß der absolute Zuwachs von Kapital von keiner entsprechenden Steigerung der allgemeinen Arbeitsnachfrage begleitet ist. Und dies nennt der Apologet eine Kompensation für das Elend, die Leiden und den möglichen Untergang der deplacierten Arbeiter während der Übergangsperiode, welche sie in die industrielle Reservearmee bannt!

Now Marx discusses the *relationship* between demand and supply of labor. The consideration of the unity of demand and supply is another element of Marx's thought which is missing in modern mainstream thought. In the present theory it plays an important role: Marx will come to the conclusion that capital acts on both sides.

The demand for labor is not identical with increase of capital, nor is supply of labor identical with increase of the working class. Demand and supply do not interact with each other as independent forces. The dice are loaded. Capital acts on both sides at once. If its accumulation on the one hand

Die Nachfrage nach Arbeit ist nicht identisch mit Wachstum des Kapitals, die Zufuhr der Arbeit nicht mit dem Wachstum der Arbeiterklasse, so daß zwei voneinander unabhängige Potenzen aufeinander einwirkten. Les dés sont pipés. Das Kapital agiert auf beiden Seiten zugleich. Wenn sei-

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increases the demand for labor, it increases on the other the supply of workers by 'setting them free', while at the same time the pressure of the unemployed compels those who are employed to furnish more labor, and therefore makes the supply of labor to a certain extent independent of the supply of laborers. The movement of the law of supply and demand of labor on this basis completes the despotism of capital.

ne Akkumulation einerseits die Nachfrage nach Arbeit vermehrt, vermehrt sie andererseits die Zufuhr von Arbeitern durch deren „Freisetzung“, während zugleich der Druck der Unbeschäftigten die Beschäftigten zur Flüssigmachung von mehr Arbeit zwingt, also in gewissem Grad die Arbeitszufuhr von der Zufuhr von Arbeitern unabhängig macht. Die Bewegung des Gesetzes der Nachfrage und Zufuhr von Arbeit auf dieser Basis vollendet die Despotie des Kapitals.

Question 1276 *Marx describes two mechanisms by which capital acts on both sides. Sides of what? Which mechanisms? Can you think of a third mechanism which again has a similar effect? 2013fa, 2008SP, 2003fa, 1999SP, 1998WI.*

Law of demand and supply of labor-power is biased in favor of capital: capital acts on both sides. The labor market does not give the workers a level playing-field, the more they work, the worse they are off. But as soon as workers try to defend themselves by organization, this law of demand and supply is proclaimed “sacred”:

Thus as soon as the workers learn the secret of why it happens that the more they work, the more alien wealth they produce, and that the more the productive powers of their labor increase, the more does their very function as a means for the valorization of capital become precarious; as soon as they discover that the degree of intensity of the competition amongst themselves depends wholly on the pressure of the relative surplus population; as soon as, by setting up trade unions etc., they try to organize planned co-operation between the employed and the unemployed in order to obviate or to weaken the ruinous effects of this natural law of capitalist production on their class; so soon does capital and its sycophant, political economy, cry out at the infringement of the ‘eternal’ and so to speak ‘sacred’ law of supply and demand. Every combination between employed and unemployed disturbs the ‘pure’ action of this law.

Sobald daher die Arbeiter hinter das Geheimnis kommen, wie es angeht, daß im selben Maß, wie sie mehr arbeiten, mehr fremden Reichtum produzieren und die Produktivkraft ihrer Arbeit wächst, sogar ihre Funktion als Verwertungsmittel des Kapitals immer prekärer für sie wird; sobald sie entdecken, daß der Intensitätsgrad der Konkurrenz unter ihnen selbst ganz und gar von dem Druck der relativen Übervölkerung abhängt; sobald sie daher durch Trade's Unions usw. eine planmäßige Zusammenwirkung zwischen den Beschäftigten und Unbeschäftigten zu organisieren suchen, um die ruinierenden Folgen jenes Naturgesetzes der kapitalistischen Produktion auf ihre Klasse zu brechen oder zu schwächen, zettelt das Kapital und sein Sykophant, der politische Ökonom, über Verletzung des „ewigen“ und sozusagen „heiligen“ Gesetzes der Nachfrage und Zufuhr. Jeder Zusammenhalt zwischen den Beschäftigten und Unbeschäftigten stört nämlich das „reine“ Spiel jenes Gesetzes.

This passage contains some direct proposals for organizing (for instance, that employed and unemployed workers should organize together) which follow from this theory. What Marx calls here a “natural law” of capitalist production is not something that comes from nature, but that is a necessity inscribed in the nature of capitalism.

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Question 1278 Which actions should the workers undertake in order to break the despotism of capital? (Also indicate which aspect of the theory calls for which action.) 2012fa, 2011fa, 2008fa, 2007SP, 2005fa, 2004fa, 2002fa, 1998WI.

The next passage exposes the hypocrisy of the economists: the law of demand and supply is only “sacred” if it is convenient.

But on the other hand, as soon as (in the colonies, for example) adverse circumstances prevent the creation of an industrial reserve army, and with it the absolute dependence of the working class upon the capitalist class, capital, along with its platitudinous Sancho Panza, rebels against the ‘sacred’ law of supply and demand, and tries to make up for its inadequacies by forcible means.

Sobald andererseits, in den Kolonien z.B., widrige Umstände die Schöpfung der industriellen Reservearmee und mit ihr die absolute Abhängigkeit der Arbeiterklasse von der Kapitalistenklasse verhindern, rebelliert das Kapital samt seinem gemeinplätzlichen Sancho Pansa, gegen das „heilige“ Gesetz der Nachfrage und Zufuhr und sucht ihm durch Zwangsmittel unter die Arme zu greifen.

Marx discusses this in chapter Thirty-Three.

Question 1280 How can the accumulation of capital decrease instead of increase the demand for labor? How can a rise in unemployment increase the supply of labor instead of just changing the composition of the given supply? 2013fa, 2012fa, 2011fa, 2009fa, 2007fa, 2004fa, 2003fa, 2001fa, 1999SP.

4. Different Forms of Existence of the Relative Surplus Population. The General Law of Capitalist Accumulation

Existenzformen is in the Moore-Aveling translation just: forms. Marx qualifies it as “forms

of existence” since he uses “form” without qualifier for the social forms of core relations.

Sometimes Marx uses “Gestalt” synonymous to “forms of existence.”

The relative surplus population consists of all workers whose labor has been made superfluous by the accumulation of capital. Marx calls these workers “repelled” by the accumulation of capital. “Repelled” not in the sense of “disgusted” but in the sense of “rejected” or “not needed,” literally “pushed away.” They are unable to find jobs, they lose their jobs, or they must accept less desirable work, because of capital accumulation. But even if they are lucky enough still to be holding on to their jobs, they may still belong to the surplus population.

634:1/o The relative surplus population exists in a variety of different nuances. Every worker belongs to it during the time when he is only partially employed or wholly unemployed. Leaving aside the large-scale and periodically recurring forms that the changing phases of the industrial

670:1 Die relative Übervölkerung existiert in allen möglichen Schattierungen. Jeder Arbeiter gehört ihr an während der Zeit, wo er halb oder gar nicht beschäftigt ist. Abgesehen von den großen, periodisch wiederkehrenden Formen, welche der Phasenwechsel des industriellen Zyklus ihr auf-

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cycle impress on it, so that it sometimes appears acute, in times of crisis, and sometimes chronic, in times when business is slack, we can identify three forms which it always possesses: the flowing, the latent, and the stagnant.

prägt, so daß sie bald akut in den Krisen erscheint, bald chronisch in den Zeiten flauen Geschäfts, besitzt sie fortwährend drei Formen: flüssige, latente und stockende.

The first paragraph is somewhat clearer in French than in German.

The above paragraph says three things about the surplus population:

- 1) Relative surplus-population exists in many different nuances.
- 2) The industrial cycle periodically imprints different characteristics (acute–chronic) on it. But this is not the subject of the present discussion.
- 3) Enduring through these cyclical changes, one can distinguish three permanent forms: flowing, latent, and stagnant. Marx does not give the definitions, only examples of these three categories. He probably thought the names, with their metaphor of water bodies, were self-explanatory. The flowing surplus population is readily re-absorbed again. The latent surplus population cannot be seen, like a stream of ground water, unless one creates a drainage channel. Regarding the stagnant surplus population, the German word for it does not mean entirely “stagnant,” but designates an intermittent, impeded, or backed-up flow.

The usual translation “floating” instead of “flowing” makes it impossible to make sense of this metaphor.

The *flowing surplus-population* is repelled here, attracted there, but overall the attraction is large enough that the passage through unemployment is always only temporary.

635:1 In the centres of modern industry—factories, workshops, ironworks, mines, etc.—the workers are sometimes repelled, sometimes attracted again in greater masses, so that the number of those employed increases on the whole, although in a constantly decreasing proportion to the scale of production. Here the surplus population exists in the flowing form.

670:2 In den Zentren der modernen Industrie—Fabriken, Manufakturen, Hütten und Bergwerken usw.—werden Arbeiter bald repelli-ert, bald in größerem Umfang wieder attrahiert, so daß im großen und ganzen die Zahl der Beschäftigten zunimmt, wenn auch in stets abnehmendem Verhältnis zur Produktionsleiter. Die Übervölkerung existiert hier in fließender Form.

The following example of flowing surplus population is specific to Marx’s time and can no longer be found today:

635:2 Both in the factories proper, and in the large workshops, where machinery enters as one factor, or even where no more than a division of labor of a modern type has been put into operation, large numbers of male workers are employed up to the age of maturity, but not beyond. Once they reach maturity, only a very small number continue to find employment in the same branches of industry, while the majority are regularly dismissed. This majority forms an element

670:3–671:1 Sowohl in den eigentlichen Fabriken wie in allen großen Werkstätten, wo Maschinerie als Faktor eingeht oder auch nur die moderne Teilung der Arbeit durchgeführt ist, braucht man massenhaft männliche Arbeiter bis zur Zurücklegung des Jugendalters. Dieser Termin einmal erreicht, bleibt nur eine sehr geringe Anzahl in denselben Geschäftszweigen verwendbar, während die Mehrzahl regelmäßig entlassen wird. Sie bildet ein Element der fließenden

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of the flowing surplus population, which grows with the extension of those branches of industry.

Übervölkerung, das mit dem Umfang der Industrie wächst.

Marx classifies these workers as flowing surplus population because they are still young and capable workers who will not stay unemployed for long. Even the industry which dismisses them may hire them back in cyclical upswings. Some of them emigrate; this too attests to their initiative and desirability as workers:

Some of these workers emigrate; in fact they are merely following capital, which has itself emigrated. One of the consequences is that the female population grows more rapidly than the male—witness England.

Ein Teil davon wandert aus und reist in der Tat nur dem auswandernden Kapital nach. Eine der Folgen ist, daß die weibliche Bevölkerung rascher wächst als die männliche, teste England.

The imbalance between men and women is the symptom of a more general contradiction which Marx addresses next: in some areas, the natural supply of labor exceeds the demand for labor, in others it cannot keep up with it. The flowing surplus population, which accompanies rising demand for labor, is itself a symptom of this contradiction, but Marx brings also more concrete examples:

That the natural increase of the number of workers does not satisfy the requirements of the accumulation of capital, and yet, at the same time, exceeds those requirements, is a contradiction inherent in capital's own movement. Capital demands more youthful workers, fewer adults. This contradiction is no more glaring than the other contradiction, namely that a shortage of 'hands' is complained of, while, at the same time, many thousands are out of work, because the division of labor chains them to a particular branch of industry.⁸⁵

Daß der natürliche Zuwachs der Arbeitermasse die Akkumulationsbedürfnisse des Kapitals nicht sättigt und sie dennoch zugleich überschreitet, ist ein Widerspruch seiner Bewegung selbst. Es braucht größere Massen Arbeiter im früheren Alter, geringere im männlichen. Der Widerspruch ist nicht schreiender als der andre, daß über Mangel an Händen geklagt wird zur selben Zeit, wo viele Tausende auf dem Pflaster liegen, weil die Teilung der Arbeit sie an einen bestimmten Geschäftszweig kettet.⁸⁵

Footnote 85 gives a specific historical example of this other contradiction:

⁸⁵ Although 80–90,000 people in London were thrown out of work during the last six months of 1866, the Factory Report says for that same half year: 'It does not appear absolutely true to say that demand will always produce supply just at the moment when it is needed. It has not always done so with labor, for much machinery has been idle last year for want of hands' (*Reports of the Inspectors of Factories, ... 31 October 1866*, p. 81).

⁸⁵ Während im letzten Halbjahr von 1866 80 000–90 000 Arbeiter in London außer Arbeit geworfen wurden, heißt es im Fabrikbericht über dasselbe Halbjahr: „Es scheint nicht absolut richtig zu sein, wenn man sagt, daß Nachfrage stets grade in dem Augenblick Zufuhr hervorbringt, da es nötig ist. Auf Arbeit traf das nicht zu, denn viel Maschinerie mußte im letzten Jahre aus Mangel an Arbeitskräften stillstehn.“ („Report of Insp. of Fact. for 31st Oct. 1866“, p. 81.)

The overwork of the young workers, their low life expectancy and early aging, exacerbates this first contradiction:

635:3–636:1 Moreover, the consumption of labor-power by capital is so rapid that the worker has already more or less completely lived himself out when he is only half-way through his life. He falls into the

Der Konsum der Arbeitskraft durch das Kapital ist zudem so rasch, daß der Arbeiter von mittlerem Alter sich meist schon mehr oder minder überlebt hat. Er fällt in die Reihen der Überzähligen oder wird von ei-

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ranks of the surplus population, or is thrust down from a higher to a lower step in the scale. It is precisely among the workers in large-scale industry that we meet with the shortest life-expectancy.

Dr. Lee, Medical Officer of Health for Manchester, stated that the average age at death of the Manchester . . . upper middle class was 38 years, while the average age at death of the laboring class was 17; while at Liverpool those figures were represented as 35 against 15. It thus appeared that the well-to-do classes had a lease of life which was more than double the value of that which fell to the lot of the less favored citizens.^{85a}

ner höheren auf eine niedrigere Staffel hinabgedrängt. Gerade bei den Arbeitern der großen Industrie stoßen wir auf die kürzeste Lebensdauer.

Dr. Lee, der Gesundheitsbeamte von Manchester, hat festgestellt, daß in jener Stadt die mittlere Lebensdauer der wohlhabenden Klasse 38, die der Arbeiterklasse nur 17 Jahre ist. In Liverpool beträgt sie 35 Jahre für die erstere, 15 für die zweite. Es folgt also daß die privilegierte Klasse eine Anweisung aufs Leben hat (have a lease of life) mehr als doppelt so groß als die ihrer weniger begünstigten Mitbürger.^{85a}

Footnote 85a was added by Engels to the third German edition:

^{85a} Opening address to the Sanitary Conference, Birmingham, 14 January 1875, by J. Chamberlain, at that time Mayor of Birmingham, and now (1883) President of the Board of Trade.

^{85a} Eröffnungsrede der sanitären Konferenz, Birmingham, 14. Jan. 1875, von J. Chamberlain, damals Mayor der Stadt, jetzt (1883) Handelsminister.

Next Marx describes the social forms which allow this portion of the population to increase despite their early deaths:

Under these circumstances, the absolute increase of this section of the proletariat calls for a form which swells their numbers, despite the rapid wastage of their individual elements. Hence, rapid replacement of one generation of workers by another (this law does not hold for the other classes of the population). This social requirement is met by early marriages, which are a necessary consequence of the conditions in which workers in large-scale industry live, and by the premium that the exploitation of the workers' children sets on their production

671:2 Unter diesen Umständen erheischt das absolute Wachstum dieser Fraktion des Proletariats eine Form, welche ihre Zahl schwellt, obgleich ihre Elemente sich schnell abnutzen. Also rasche Ablösung der Arbeitergenerationen. (Dasselbe Gesetz gilt nicht für die übrigen Klassen der Bevölkerung.) Dies gesellschaftliche Bedürfnis wird befriedigt durch frühe Ehen, notwendige Folge der Verhältnisse, worin die Arbeiter der großen Industrie leben, und durch die Prämie, welche die Exploitation der Arbeiterkinder auf ihre Produktion setzt.

Child labor, a product of the drive for maximum profits, has the unintended and for capital beneficial side effect of encouraging large families.

The *latent surplus population* is like a stream of ground water: the water is not visible on the surface but it will collect as soon as one digs a ditch. Marx's main example is the agricultural workers. (Today, the main examples of the latent surplus population are immigrant workers, and married women staying at home but willing to take a job if they can find one.)

636:3/o As soon as capitalist production takes possession of agriculture and in proportion to the extent to which it does so, the demand for a rural working population falls absolutely, while the accumulation of the capital employed in agriculture advances, without this repulsion being compensated

671:3/o Sobald sich die kapitalistische Produktion der Agrikultur, oder im Grad, worin sie sich derselben bemächtigt hat, nimmt mit der Akkumulation des hier funktionierenden Kapitals die Nachfrage für die ländliche Arbeiterbevölkerung absolut ab, ohne daß ihre Repulsion, wie in der nicht

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for by a greater attraction of workers, as is the case in non-agricultural industries.

Since this surplus population is latent (hidden), one has to infer its existence from its effects. One of the effects of the latent surplus population in the rural areas is the flow of workers from the countryside to the cities:

Part of the agricultural population is therefore constantly on the point of passing over into an urban or manufacturing proletariat, and on the lookout for opportunities to complete this transformation. (The term 'manufacture' is used here to cover all non-agricultural industries.)⁸⁶ This is therefore a constantly flowing source of relative surplus population. But the constant movement towards the towns presupposes, in the countryside itself, a constant latent surplus population, the extent of which only becomes evident at those exceptional times when its outlet channels are wide open.

⁸⁶ 'The 781 towns' enumerated in the census of England and Wales for 1861 'contained 10,960,998 inhabitants, while the villages and country parishes contained 9,105,226. In 1851, 580 towns were distinguished, and the population in them and in the surrounding country was nearly equal. But while in the subsequent ten years the population in the villages and the country increased half a million, the population in the 580 towns increased by a million and a half (1,554,067). The increase of the population of the country parishes is 6.5 per cent, and of the towns 17.3 per cent. The difference in the rates of increase is due to the migration from country to town. Three-fourths of the total increase of population has taken place in the towns' (Census, etc., Vol. 3, pp. 11–12).

Another effect is the low agricultural wages:

The wages of the agricultural laborer are therefore reduced to a minimum. He always stands with one foot in the swamp of pauperism.

Stagnant surplus population. They are likely to be older, or have low or outdated skills. They have very irregular employment, sometimes unemployed, or holding down part time jobs, etc.

637:1 The third category of the relative surplus population is the stagnant surplus population. Although part of the active labor army, it has extremely irregular em-

agrikolen Industrie, durch größere Attraktion ergänzt wäre.

Ein Teil der Landbevölkerung befindet sich daher fortwährend auf dem Sprung, in städtisches oder Manufakturproletariat überzugehen, und in der Lauer auf dieser Verwandlung günstige Umstände. (Manufaktur hier im Sinn aller nichtagrikolen Industrie.)⁸⁶ Diese Quelle der relativen Übervölkerung fließt also beständig. Aber ihr beständiger Fluß nach den Städten setzt auf dem Lande selbst eine fortwährend latente Übervölkerung voraus, deren Umfang nur sichtbar wird, sobald sich die Abzugskanäle ausnahmsweise weit öffnen.

⁸⁶ „781 Städte“ sind aufgezählt im Zensus von 1861 für England und Wales „mit 10 960 998 Einwohnern, während die Dörfer und Landkirchspiele nur 9105 226 zählen ... Im Jahr 1851 figurierten 500 Städte im Zensus, deren Bevölkerung ungefähr gleich der Bevölkerung der sie umgebenden Landdistrikte war. Während aber in den letzteren die Bevölkerung während der folgenden 10 Jahre nur um eine halbe Million wuchs, wuchs sie in den 580 Städten um 1 554 067. Der Bevölkerungszuwachs in den Landkirchspielen ist 6,5%, in den Städten 17,3%. Der Unterschied in der Rate des Wachstums ist der Wanderung vom Land in die Stadt geschuldet. Drei Viertel des Gesamtwachstums der Bevölkerung gehört den Städten.“ („Census etc.“, v. III, p. 11, 12.)

Der Landarbeiter wird daher auf das Minimum des Salairs herabgedrückt und steht mit einem Fuß stets im Sumpf des Pauperismus.

672:1 Die dritte Kategorie der relativen Übervölkerung, die stockende, bildet einen Teil der aktiven Arbeiterarmee, aber mit durchaus unregelmäßiger Beschäfti-

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ployment. It offers capital an inexhaustible reservoir of disposable labor-power. Its conditions of life sink below the average normal level of the working class, and it is precisely this which makes it a broad target for specialized branches of capitalist exploitation. It is characterized by a maximum of working time and a minimum of wages. We have already become familiar with its chief form under the rubric of 'domestic industry'. It is constantly recruited from workers in large-scale industry and agriculture who have become redundant, and especially from those decaying branches of industry where handicraft is giving way to manufacture, and manufacture to machinery. Its extent grows in proportion as, with the growth in the extent and energy of accumulation, the creation of a surplus population also advances. But it forms at the same time a self-reproducing and self-perpetuating element of the working class, taking a proportionally greater part in the general increase of that class than the other elements. In fact, not only the number of births and deaths, but the absolute size of families, stands in inverse proportion to the level of wages, and therefore to the amount of the means of subsistence at the disposal of different categories of worker. This law of capitalist society would sound absurd among savages, or even among civilized colonists. It calls to mind the boundless reproduction of animals individually weak and constantly hunted down.⁸⁷

⁸⁷ 'Poverty seems favorable to generation' (Adam Smith, [Smi39, vol. 1, ch. 8, p. 195]). Indeed, according to the gallant and witty Abbé Galiani, this is a specially wise arrangement made by God. 'God has decreed that the men who carry on the most useful crafts should be born in abundant numbers' [Gal03, p. 78]. 'Misery up to the extreme point of famine and pestilence, instead of checking, tends to increase population' (S. Laing, *National Distress*, 1844, p. 69). After Laing has illustrated this by statistics, he continues: 'If the people were all in easy circumstances, the world would soon be depopu-

gung. Sie bietet so dem Kapital einen unerschöpflichen Behälter disponibler Arbeitskraft. Ihre Lebenslage sinkt unter das durchschnittliche Normalniveau der arbeitenden Klasse, und grade dies macht sie zur breiten Grundlage eigner Exploitationszweige des Kapitals. Maximum der Arbeitszeit und Minimum des Salairs charakterisieren sie. Wir haben unter der Rubrik der Hausarbeit ihre Hauptgestalt bereits kennengelernt. Sie rekrutiert sich fortwährend aus den Überzähligen der großen Industrie und Agrikultur und namentlich auch aus untergehenden Industriezweigen, wo der Handwerksbetrieb dem Manufakturbetrieb, letzterer dem Maschinenbetrieb erliegt. Ihr Umfang dehnt sich, wie mit Umfang und Energie der Akkumulation die „Überzähligmachung“ fortschreitet. Aber sie bildet zugleich ein sich selbst reproduzierendes und verewigendes Element der Arbeiterklasse, das verhältnismäßig größeren Anteil am Gesamtwachstum derselben nimmt als die übrigen Elemente. In der Tat steht nicht nur die Masse der Geburten und Todesfälle, sondern die absolute Größe der Familien in umgekehrtem Verhältnis zur Höhe des Arbeitslohns, also zur Masse der Lebensmittel, worüber die verschiedenen Arbeiterkategorien verfügen. Dies Gesetz der kapitalistischen Gesellschaft klänge unsinnig unter Wilden oder selbst zivilisierten Kolonisten. Es erinnert an die massenhafte Reproduktion individuell schwacher und vielgehetzter Tierarten.⁸⁷

⁸⁷ „Armut scheint die Fortpflanzung zu begünstigen.“ (A. Smith, [Smi39, Bd. 1, Kap. 8, p. 195].) Dies ist sogar eine besonders weise Einrichtung Gottes nach dem galanten und geistreichen Abbé Galiani: „Gott hat es gefügt, daß die Menschen, die die nützlichsten Berufe ausüben, überreichlich geboren werden.“ [Gal03, p. 78] „Elend, bis zum äußersten Grad von Hungersnot und Pestilenz, vermehrt eher das Wachstum der Bevölkerung, statt es zu hemmen.“ (S. Laing, „National Distress“, 1844, p. 69.) Nachdem Laing dies statistisch illustriert, fährt er fort: „Befände sich alle Welt in bequemen Umständen, so wäre die Welt

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lated.’

bald entvölkert.” („If the people were all in easy circumstances, the world would soon be depopulated.“)

Question 1284 Which parts of the surplus population do these people belong to: A housewife looking for a job, someone employed part time (or with several part time jobs) looking for a full time job with benefits, high school graduates who don’t find jobs, someone unemployed actively looking for work, someone unemployed waiting until the unemployment compensation has run out, discouraged workers on welfare, someone who has a lower-paying job because her skills are outdated. [2011fa](#), [2010fa](#), [2008fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [2001fa](#).

Question 1285 Can the following modern categories be reconciled with Marx’s categories? structural unemployment, frictional unemployment, cyclical unemployment, discouraged workers, the dual labor market, age discrimination. [2012fa](#).

After these three forms of surplus population, Marx discusses a fourth form, pauperism. Pauperism is not the direct result of the repulsion of labor by capital, but the result of the result of this expulsion, i.e., the result of the existence of a surplus population. The accumulation of capital turns employed into unemployed workers, and unemployment (not accumulation) turns the unemployed into paupers. Marx distinguishes again between three forms of pauperism, plus one really bad one:

- Paupers capable of working, who manage to re-enter the active working army in times of extraordinary demand for labor;
- Orphans and children of paupers, who are the victims of a different indirect effect: capitalist accumulation kills or impoverishes the parents, and this also turns their children into paupers.
- Paupers incapable of working, crippled, ragged: they are not only repelled by capital but also disabled, often because they are no longer used.
- Criminals, prostitutes, etc. They can again be considered a separate social layer which is the result of the existence of pauperism.

637:1/o The deepest fallout from the relative surplus population, finally, dwells in the sphere of pauperism. Apart from vagabonds, criminals, prostitutes, in short the actual lumpenproletariat, this social stratum consists of three categories. First, those able to work. One need only glance superficially at the statistics of English pauperism to find that the quantity of paupers increases with every crisis of trade, and diminishes with every revival.

673:1 Der tiefste Niederschlag der relativen Übervölkerung endlich behaust die Sphäre des Pauperismus. Abgesehen von Vagabunden, Verbrechern, Prostituierten, kurz dem eigentlichen Lumpenproletariat, besteht diese Gesellschaftsschichte aus drei Kategorien. Erstens Arbeitsfähige. Man braucht die Statistik des englischen Pauperismus nur oberflächlich anzusehn, und man findet, daß seine Masse mit jeder Krise schwillt und mit jeder Wiederbelebung des Geschäfts abnimmt.

↑ This variation in numbers is proof that a part of the paupers turn into employed workers when labor demand is high.

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Second, orphans and pauper children. These are candidates for the industrial reserve army, and in times of great prosperity, such as the year 1860 for instance, they are enrolled in the army of active workers both speedily and in large numbers. Third, the demoralized, the ragged, and those unable to work, chiefly people to whom the immobility caused by the division of labor has become fatal; people who have lived beyond the worker's average life-span; and the victims of industry, whose number increases with the growth of dangerous machinery, of mines, chemical works, etc., the mutilated, the sickly, the widows, etc. Pauperism is the infirmery of the active labor-army and the dead weight of the industrial reserve army. Its production is included in that of the relative surplus population, its necessity is implied by their necessity; along with the surplus population, pauperism forms a condition of capitalist production, and of the capitalist development of wealth. It forms part of the incidental expenses of capitalist production: but capital usually knows how to transfer these from its own shoulders to those of the working class and the petty bourgeoisie.

Zweitens: Waisen und Pauperkinder. Sie sind Kandidaten der industriellen Reservearmee und werden in Zeiten großen Aufschwungs, wie 1860 z.B., rasch und massenhaft in die aktive Arbeiterarmee einrolliert. Drittens: Verkommene, Verlumpfte, Arbeitsunfähige. Es sind namentlich Individuen, die an ihrer durch die Teilung der Arbeit verursachten Unbeweglichkeit untergehn, solche, die über das Normalalter eines Arbeiters hinausleben, endlich die Opfer der Industrie, deren Zahl mit gefährlicher Maschinerie, Bergwerksbau, chemischen Fabriken etc. wächst, Verstümmelte, Erkrankte, Witwen etc. Der Pauperismus bildet das Invalidenhaus der aktiven Arbeiterarmee und das tote Gewicht der industriellen Reservearmee. Seine Produktion ist eingeschlossen in der Produktion der relativen Übervölkerung, seine Notwendigkeit in ihrer Notwendigkeit, mit ihr bildet er eine Existenzbedingung der kapitalistischen Produktion und Entwicklung des Reichtums. Er gehört zu den faux frais der kapitalistischen Produktion, die das Kapital jedoch größtenteils von sich selbst ab auf die Schultern der Arbeiterklasse und der kleinen Mittelklasse zuwälzen weiß.

I translated "Niederschlag der relativen Übervölkerung" with "fallout from" instead of "sediment of," since the clause "lowest sediment" evokes the

image of the lowest layer in a rock, i.e., it makes it appear as if pauperism were part of the surplus population. I wrote "infirmery" instead of

"hospital" (both Fowkes and Moore-Aveling use "hospital") because nowadays one expects a hospital to heal its patients. This was not the case at Marx's time.

Question 1286 What is pauperism?

What is its relationship to the relative surplus population?

Discuss contemporary forms of pauperism.

Which political actions can one expect from paupers and why? 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007SP, 2005fa, 2004fa, 2002fa, 1999SP.

The next four paragraphs give an important summary of the whole chapter. It begins with a recapitulation of the present section:

638:1 The greater the social wealth, the functioning capital, the extent and energy of its growth, therefore also the absolute size of the proletariat and the productive powers of its labor, the greater is the industrial reserve army. The same causes which develop the

673:2/o Je größer der gesellschaftliche Reichtum, das funktionierende Kapital, Umfang und Energie seines Wachstums, also auch die absolute Größe des Proletariats und die Produktivkraft seiner Arbeit, desto größer die industrielle Reservearmee. Die

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expansive power of capital, also develop the disposable labor-power.

disponible Arbeitskraft wird durch dieselben Ursachen entwickelt wie die Expansivkraft des Kapitals.

↑ By “disposable” labor-power Marx means that part of the labor-power that is relatively in surplus. In the fourth paragraph, 639:2/o, Marx speaks of an equilibrium between relative surplus-population and the extent and energy of accumulation.

The relative magnitude of the industrial reserve army thus increases with the potential energy of wealth. But the greater this reserve army in proportion to the active labor-army, the greater is the mass of a consolidated surplus population, whose misery is in inverse ratio to the amount of torture it has to undergo in the form of labor.

Die verhältnismäßige Größe der industriellen Reservearmee wächst also mit den Potenzen des Reichtums. Je größer aber diese Reservearmee im Verhältnis zur aktiven Arbeiterarmee, desto massenhafter die konsolidierte Übervölkerung, deren Elend im umgekehrten Verhältnis zu ihrer Arbeitsqual steht.

Question 1287 *What is worse: the misery of idle impoverishment or the torture of work?* 2013fa, 2012fa, 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 2001fa, 1999SP.

The more extensive, finally, the pauperized sections of the working class and the industrial reserve army, the greater is official pauperism.

Je größer endlich die Lazarusschichte der Arbeiterklasse und die industrielle Reservearmee, desto größer der offizielle Pauperismus.

What Marx said since the beginning of this paragraph is a formulation of the General Law of Capitalist Accumulation:

This is the absolute general law of capitalist accumulation. Like all other laws, it is modified in its working by many circumstances, the analysis of which does not concern us here.

Dies ist das absolute, allgemeine Gesetz der kapitalistischen Akkumulation. Es wird gleich allen andren Gesetzen in seiner Verwirklichung durch mannigfache Umstände modifiziert, deren Analyse nicht hierher gehört.

↑ This last sentence notes that all laws are tendential. This is especially true regarding social laws, since social phenomena will come into existence only through the individual activity which may have quite different intentions.

↓ Population is controlled by capital, therefore there is no use to try to control it on the side of the laborers:

638:2/o We can now understand the foolishness of the economic wisdom which preaches to the workers that they should adapt their numbers to the valorization requirements of capital. The mechanism of capitalist production and accumulation itself constantly effects this adjustment. The first word of this adaptation is the creation of a relative surplus population, or industrial reserve army. Its last word is the misery of constantly expanding strata of the active

674:1 Man begreift die Narrheit der ökonomischen Weisheit, die den Arbeitern predigt, ihre Zahl den Verwertungsbedürfnissen des Kapitals anzupassen. Der Mechanismus der kapitalistischen Produktion und Akkumulation paßt diese Zahl beständig diesen Verwertungsbedürfnissen an. Erstes Wort dieser Anpassung ist die Schöpfung einer relativen Übervölkerung oder industriellen Reservearmee, letztes Wort das Elend stets wachsender Schichten der aktiven Ar-

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army of labor, and the dead weight of pauperism.

beiterarmee und das tote Gewicht des Pauperismus.

Question 1288 *Does it follow from this argument that overpopulation is not the problem with world poverty today?* [2012fa](#), [2009fa](#), [2008fa](#), [2007fa](#), [2007SP](#).

Next Marx situates this general law of capitalist accumulation as the capitalistic expression of some general laws of technology. Instead of being a way out of the drudgery of labor, the higher productive powers are, under capitalism, turned against the laborer. This is alienation:

639:1 On the basis of capitalism, a system in which the worker does not employ the means of production, but the means of production employ the worker, the law by which a constantly increasing quantity of means of production may be set in motion by a progressively diminishing expenditure of human power, thanks to the advance in the productivity of social labor, undergoes a complete inversion, and is expressed thus: the higher the productive powers of labor, the greater is the pressure of the workers on the means of employment, the more precarious therefore becomes the condition for their existence, namely the sale of their own labor-power for the increase of alien wealth, or in other words the self-valorization of capital. The fact that the means of production and the productive powers of labor increase more rapidly than the productive population expresses itself, therefore, under capitalism, in the inverse form that the working population always increases more rapidly than the valorization requirements of capital.

674:2 Das Gesetz, wonach eine immer wachsende Masse von Produktionsmitteln, dank dem Fortschritt in der Produktivität der gesellschaftlichen Arbeit, mit einer progressiv abnehmenden Ausgabe von Menschenkraft in Bewegung gesetzt werden kann—dieses Gesetz drückt sich auf kapitalistischer Grundlage, wo nicht der Arbeiter die Arbeitsmittel, sondern die Arbeitsmittel den Arbeiter anwenden, darin aus, daß, je höher die Produktivkraft der Arbeit, desto größer der Druck der Arbeiter auf ihre Beschäftigungsmittel, desto prekärer also ihre Existenzbedingung: Verkauf der eignen Kraft zur Vermehrung des fremden Reichtums oder zur Selbstverwertung des Kapitals. Rascheres Wachstum der Produktionsmittel und der Produktivität der Arbeit als der produktiven Bevölkerung drückt sich kapitalistisch also umgekehrt darin aus, daß die Arbeiterbevölkerung stets rascher wächst als das Verwertungsbedürfnis des Kapitals.

This last sentence gives an ultimate background reasoning why capital can successfully use technology to overcome the natural barrier of the population growth: growth of the productive powers of labor is more rapid than that of the population.

Question 1289 *The only way the worker can improve his lot in society is to increase the productive powers of his labor. Right or wrong?* [2011fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2007SP](#), [2005fa](#), [2004fa](#), [2003fa](#), [2002fa](#), [1999SP](#).

The passage culminates in a vivid description of the antagonistic character of the accumulation of capital. First an interesting summary of part IV:

639:2/o We saw in Part IV, when analyzing the production of relative surplus-value, that within the capitalist system all methods for raising the social productive powers of

674:3/o Wir sahen im vierten Abschnitt bei Analyse der Produktion des relativen Mehrwerts: innerhalb des kapitalistischen Systems vollziehn sich alle Methoden zur

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labor are put into effect at the expense of the individual worker; that all means for the development of production undergo a dialectical inversion so that they become means of domination and exploitation of the producers; they distort the worker into a fragment of a man, they degrade him to the level of an appendage of a machine, they destroy the actual content of his labor by turning it into a torment; they alienate from him the intellectual potentialities of the labor process in the same proportion as science is incorporated in it as an independent power; they deform the conditions under which he works, subject him during the labor process to a despotism the more hateful for its meanness; they transform his life-time into working-time, and drag his wife and child beneath the wheels of the juggernaut of capital.

⇓ Now from production to accumulation:

But all methods for the production of surplus-value are at the same time methods of accumulation, and every extension of accumulation becomes, conversely, a means for the development of those methods. It follows therefore that in proportion as capital accumulates, the situation of the worker, be his payment high or low, must grow worse.

Finally, the law which always holds the relative surplus population or industrial reserve army in equilibrium with the extent and energy of accumulation rivets the worker to capital more firmly than the wedges of Hephaestus held Prometheus to the rock. It makes an accumulation of misery a necessary condition, corresponding to the accumulation of wealth. Accumulation of wealth at one pole is, therefore, at the same time accumulation of misery, the torment of labor, slavery, ignorance, brutalization and moral degradation at the opposite pole, i.e. on the side of the class that produces its own product as capital.

Tendency of the development of the relative surplus-population. Law of the absolute impoverishment (immiseration) of the working class. Its truth today must be seen on a world wide scale.

Steigerung der gesellschaftlichen Produktivkraft der Arbeit auf Kosten des individuellen Arbeiters; alle Mittel zur Entwicklung der Produktion schlagen um in Beherrschungs- und Exploitationsmittel des Produzenten, verstümmeln den Arbeiter in einen Teilmenschen, entwürdigen ihn zum Anhängsel der Maschine, vernichten mit der Qual seiner Arbeit ihren Inhalt, entfremden ihm die geistigen Potenzen des Arbeitsprozesses im selben Maße, worin letzterem die Wissenschaft als selbständige Potenz einverleibt wird; sie verunstalten die Bedingungen, innerhalb deren er arbeitet, unterwerfen ihn während des Arbeitsprozesses der kleinlichst gehässigen Despotie, verwandeln seine Lebenszeit in Arbeitszeit, schleudern sein Weib und Kind unter das Juggernaut-Rad des Kapitals.

Aber alle Methoden zur Produktion des Mehrwerts sind zugleich Methoden der Akkumulation, und jede Ausdehnung der Akkumulation wird umgekehrt Mittel zur Entwicklung jener Methoden. Es folgt daher, daß im Maße wie Kapital akkumuliert, die Lage des Arbeiters, welches immer seine Zahlung, hoch oder niedrig, sich verschlechtern muß.

Das Gesetz endlich, welches die relative Übervölkerung oder industrielle Reservearmee stets mit Umfang und Energie der Akkumulation in Gleichgewicht hält, schmiedet den Arbeiter fester an das Kapital als den Prometheus die Keile des Hephästos an den Felsen. Es bedingt eine der Akkumulation von Kapital entsprechende Akkumulation von Elend. Die Akkumulation von Reichtum auf dem einen Pol ist also zugleich Akkumulation von Elend, Arbeitsqual, Sklaverei, Unwissenheit, Brutalisierung und moralischer Degradation auf dem Gegenpol, d.h. auf Seite der Klasse, die ihr eignes Produkt als Kapital produziert.

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The section concludes with a collection of quotes how the economists saw this “antagonistic character of the capitalist accumulation process” (and in footnote 88 Marx’s own earlier formulation).

640:1 This antagonistic character of capitalist accumulation⁸⁸ is enunciated in various forms by political economists, although they lump it together with other phenomena which are admittedly to some extent analogous, but nevertheless essentially distinct, since they appear only in pre-capitalist modes of production.

⁸⁸ ‘From day to day it thus becomes clearer that the relations of production in which the bourgeoisie moves do not have a simple, uniform character but rather a double-edged one; that in the same relations in which wealth is produced poverty is produced also; that in the same relations in which there is a development of the forces of production, there is also the development of a repressive force; that these relations produce bourgeois wealth, i.e. the wealth of the bourgeois class, only by continually annihilating the wealth of the individual members of this class and by producing an ever-growing proletariat’ (Karl Marx, *Misère de la Philosophie*, p. 116) [English edition, p. 107].

640:2–3 The Venetian monk Ortes, one of the great economic writers of the eighteenth century, regards the antagonism of capitalist production as a universal natural law of social wealth.

‘In the economy of a nation, advantages and evils always balance each other’; ‘the abundance of wealth with some people is always equal to the lack of wealth with others’; ‘The great riches of a small number are always accompanied by the absolute deprivation of the essential necessities of life for many others. The wealth of a nation corresponds with its population, and its misery corresponds with its wealth. Diligence in some compels idleness in others. The poor and idle are a necessary consequence of the rich and active’, and so on.⁸⁹

675:1 Dieser antagonistische Charakter der kapitalistischen Akkumulation⁸⁸ ist in verschiedenen Formen von politischen Ökonomen ausgesprochen, obgleich sie zum Teil zwar analoge, aber dennoch wesentlich verschiedene Erscheinungen vorkapitalistischer Produktionsweisen damit zusammenwerfen.

⁸⁸ „Von Tag zu Tag wird es somit klarer, daß die Produktionsverhältnisse, in denen sich die Bourgeoisie bewegt, nicht einen einheitlichen, einfachen Charakter haben, sondern einen zwischlächtigen; daß in denselben Verhältnissen, in denen der Reichtum produziert wird, auch das Elend produziert wird; daß in denselben Verhältnissen, in denen die Entwicklung der Produktivkräfte vor sich geht, sich eine Repressionskraft entwickelt; daß diese Verhältnisse den bürgerlichen Reichtum, d.h. den Reichtum der Bourgeoisieklasse, nur erzeugen unter fortgesetzter Vernichtung des Reichtums einzelner Glieder dieser Klasse und unter Schaffung eines stets wachsenden Proletariats.’ (Karl Marx, „*Misère de la Philosophie*“, [mecw].)

675:2–3 Der venetianische Mönch Ortes, einer der großen ökonomischen Schriftsteller des 18. Jahrhunderts, faßt den Antagonismus der kapitalistischen Produktion als allgemeines Naturgesetz des gesellschaftlichen Reichtums.

Das ökonomisch Gute und ökonomisch Böse halten sich in einer Nation stets das Gleichgewicht (il bene ed il male economico in una nazione sempre all’istessa misura), die Fülle der Güter für einige ist immer gleich dem Mangel derselben für andre (la copia dei beni in alcuni sempre eguale alla mancanza di essi in altri). Großer Reichtum von einigen ist stets begleitet von absoluter Beraubung des Notwendigen bei viel mehr andren. Der Reichtum einer Nation entspricht ihrer Bevölkerung, und ihr Elend entspricht ihrem Reichtum. Die Arbeitsamkeit in einigen erzwingt den Müßiggang in andren. Die Armen und Müßigen sind eine notwendige Frucht der Reichen und Tüchtigen“ usw.⁸⁹

25. General Law of Capitalist Accumulation

Ortes sees the contradictions of capitalism, but he attributes them to the working of eternal laws of balance.

Question 1293 “*The poor and idle are a necessary consequence of the rich and active.*”
Right or wrong? 2011fa, 2010fa, 2009fa, 2008fa, 2008SP, 2007fa, 2007SP, 2005fa, 2004fa, 2003fa, 2002fa, 1997WI.

⁸⁹ G. Ortes, *Della economia nazionale libri sei*, 1777, in Custodi, *Parte moderna*, Vol. 21, pp. 6, 9, 22, 25, etc. Ortes says, op. cit., p. 32: ‘Instead of projecting useless systems for achieving the happiness of peoples, I shall limit myself to investigating the reasons for their unhappiness.’

640:4–641:1a About ten years after Ortes, the High Church Protestant parson, Townsend, glorified misery as a necessary condition of wealth in a thoroughly brutal way.

‘Legal constraint (to labor)’ is attended with too much trouble, violence, and noise, ... whereas hunger is not only a peaceable, silent, unremitted pressure, but as the most natural motive to industry and labor, it calls forth the most powerful exertions.’

Everything therefore depends on making hunger permanent among the working class, and this is provided for, according to Townsend, by the principle of population, which is especially applicable to the poor.

‘It seems to be a law of Nature that the poor should be to a certain degree improvident’ (i.e. so improvident as to be born without silver spoons in their mouths) ‘that there may always be some to fulfil the most servile, the most sordid, and the most ignoble offices in the community. The stock of human happiness is thereby much increased, whilst the more delicate are not only relieved from drudgery ... but are left at liberty without interruption to pursue those callings which are suited to their various dispositions ... it’ (the Poor Law) ‘tends to destroy the harmony and beauty, the symmetry and order of that system which God and Nature have established in the world.’⁹⁰

⁹⁰ *A Dissertation on the Poor Laws. By a Well-wisher of Mankind* (the Rev. J. Townsend), 1786, republished London, 1817, pp. 15, 39, 41. This

⁸⁹ G. Ortes, „Della Economia Nazionale libri sei 1774“, bei Custodi, *Parte Moderna*, t. XXI, p. 6, 9, 22, 25 etc. Ortes sagt l.c. p. 32: „Statt unnütze Systeme für das Glück der Völker aufzustellen, will ich mich darauf beschränken, die Gründe ihres Unglücks zu untersuchen.“

676:1–4 In ganz grober Weise verherrlichte ungefähr 10 Jahre nach Ortes der hochkirchliche protestantische Pfaffe Townsend die Armut als notwendige Bedingung des Reichtums.

„Gesetzlicher Zwang zur Arbeit ist verbunden mit zuviel Mühe, Gewaltsamkeit und Geräusch, während der Hunger nicht nur ein friedlicher, schweigsamer, unaufhörlicher Druck, sondern als natürlichstes Motiv zur Industrie und Arbeit die machtvollste Anstrengung hervorruft.“

Alles kommt also darauf an, den Hunger unter der Arbeiterklasse permanent zu machen, und dafür sorgt, nach Townsend, das Bevölkerungsprinzip, das besonders unter den Armen tätig ist.

„Es scheint ein Naturgesetz, daß die Armen zu einem gewissen Grad leichtsinnig (improvident) sind“ (nämlich so leichtsinnig, auf die Welt zu kommen ohne goldne Löffel im Mund), „so daß stets welche da sind (that there always may be some) zur Erfüllung der servilsten, schmutzigsten und gemeinsten Funktionen des Gemeinwesens. Der Fonds von menschlichem Glück (the fund of human happiness) wird dadurch sehr vermehrt, die Delikateren (the more delicate) sind von der Plackerei befreit und können höherem Beruf usw. ungestört nachgehn. ... Das Armengesetz hat die Tendenz, die Harmonie und Schönheit, die Symmetrie und Ordnung dieses Systems, welches Gott und die Natur in der Welt errichtet haben, zu zerstören.“⁹⁰

⁹⁰ „A Dissertation on the Poor Laws. By a Wellwisher of Mankind (The Rev. Mr. J. Townsend), 1876“, republished Lond 1817, p. 15, 39,

4. Forms of Existence of Surplus Population

‘delicate’ parson, from whose work just quoted, as well as from his *Journey through Spain*, Malthus often copies whole pages, himself borrowed the greater part of his doctrine from Sir James Steuart, though distorting Steuart’s views in the process. For example, Steuart says ‘Here, in slavery, was a forcible methods of making mankind diligent’ (in the interests of the non-workers) ... ‘Men were then forced to work’ (i.e. to work for others without return) ‘because they were slaves of others; men are now forced to work’ (i.e. to work for non-workers without return) ‘because they are the slaves of their necessities.’ But, unlike our fat benefice-holder, he does not conclude from this that the wage-laborer must always go fasting. He wishes, on the contrary, to multiply their needs, and to make the increasing number of their needs a stimulus to their labor on behalf of the ‘more delicate’.

The idea with increasing the needs is Stewart’s, not Townsend’s. Marx cites it approvingly, and it is reality today!

641:1b If the Venetian monk found in the fatal destiny that makes misery eternal a justification for the existence of Christian charity, celibacy, monasteries and pious foundations, the beneficed Protestant finds in it a pretext for condemnation the laws by which the poor possessed a right to a miserable amount of public relief.

‘The progress of social wealth,’ says Storch, ‘begets this useful class of society ... which performs the most wearisome, the vilest, the most disgusting functions, which, in a word, takes on its shoulders all that is disagreeable and servile in life, and procures thus for other classes leisure, serenity of mind and’ (now listen to this) ‘conventional dignity of character.’⁹¹

Storch then asks himself what the actual advantage is of this capitalist civilization, with its misery and its degradation of the masses, as compared with barbarism. He can find only one answer: security!

⁹¹ Storch, op. cit., Vol. 3, p. 223.

Now from Storch to Sismondi:

641:4/o ‘Thanks to the advance of industry and science,’ says Sismondi, ‘every worker can produce every day much more than he

41. Dieser „delikate“ Pfaffe, dessen eben angeführte Schrift, nebst seiner Reise durch Spanien, Malthus oft seitenlang abschreibt, entlehnte den größten Teil seiner Doktrin aus Sir J. Steuart, den er jedoch verdreht. Z.B. wenn Steuart sagt: „Hier, in der Sklaverei, existierte eine gewaltsame Methode, die Menschheit arbeitsam“ (für die Nichtarbeiter) „zu machen. . . Die Menschen wurden damals zur Arbeit“ (d.h. zur Gratisarbeit für andere) „gezwungen, weil sie Sklaven von anderen waren; die Menschen sind jetzt zur Arbeit (d.h. zur Gratisarbeit für Nichtarbeiter) „gezwungen, weil sie die Sklaven ihrer eignen Bedürfnisse sind“, so schließt er deswegen nicht, wie der fette Pfründner, daß—die Lohnarbeiter stets am Hungertuch nagen sollen. Er will umgekehrt ihre Bedürfnisse vermehren und die wachsende Zahl ihrer Bedürfnisse zugleich zum Sporn ihrer Arbeit für „die Delikateren“ machen.

676:5 Fand der venetianische Mönch in dem Schicksalsschluß, der das Elend verewigt, die Existenzberechtigung der christlichen Wohltätigkeit, des Zölibats, der Klöster und frommen Stiftungen, so findet im Gegenteil der protestantische Pfründner darin den Vorwand, die Gesetze zu verdammen, kraft deren der Arme ein Recht auf kärgliche öffentliche Unterstützung besaß.

„Der Fortschritt des gesellschaftlichen Reichtums“, sagt Storch, „erzeugt jene nützliche Klasse der Gesellschaft. . . welche die langweiligsten, gemeinsten und ekelhaftesten Beschäftigungen ausübt, in einem Wort alles, was das Leben Unangenehmes und Knechtendes hat, auf ihre Schultern nimmt und ebendadurch den andren Klassen die Zeit, die Heiterkeit des Geistes und die konventionelle“ (c’est bon!) „Charakterwürde verschafft etc.“⁹¹

Storch fragt sich, welches denn eigentlich der Vorzug dieser kapitalistischen Zivilisation mit ihrem Elend und ihrer Degradation der Massen vor der Barbarei? Er findet nur eine Antwort—die Sicherheit!

⁹¹ Storch, l.c., t. III, p. 223.

677:3 „Durch den Fortschritt der Industrie und Wissenschaft“, sagt Sismondi, „kann jeder Arbeiter jeden Tag viel mehr produzieren,

25. General Law of Capitalist Accumulation

needs to consume. But at the same time, while his labor produces wealth, that wealth would, were he called on to consume it himself, make him less fit for labor.’ According to him, ‘men’ (i.e. non-workers) ‘would probably prefer to do without all artistic perfection, and all the enjoyments that industry procures for us, if it were necessary that all should buy them by constant toil like that of the worker ... Exertion today is separated from its recompense; it is not the same man that first works, and then reposes; but it is because the one works that the other rests ... The indefinite multiplication of the productive powers of labor can have no other result than the increase of luxury and enjoyment on the part of the idle rich.’

⁹² Sismondi, op. cit., pp. 79–80, 85.

642:1–2 And finally, that fish-blooded bourgeois doctrinaire Destutt de Tracy makes the point in the most brutal fashion:

In poor nations the people are comfortable, in rich nations they are generally poor.⁹³

⁹³ Destutt de Tracy, op. cit., p. 231: ‘Les nations pauvres, c’est là où le peuple est à son aise; et les nations riches, c’est là où il est ordinairement pauvre.’

Marx stresses in all these quotes that only the nonworkers are considered humans.

als er zu seinem Konsum braucht. Aber zu gleicher Zeit, während seine Arbeit den Reichtum produziert, würde der Reichtum, wäre er berufen, ihn selbst zu konsumieren, ihn wenig geeignet zur Arbeit machen.“ Nach ihm „würden die Menschen“ (d.h. die Nichtarbeiter) „wahrscheinlich auf alle Vervollkommnungen der Künste verzichten wie auf alle Genüsse, die die Industrie uns verschafft, müßten sie diese durch anhaltende Arbeit, wie die des Arbeiters, erkaufen ... Die Anstrengungen sind heute geschieden von ihrer Belohnung; es ist nicht derselbe Mensch, der erst arbeitet und sich dann ausruht: im Gegenteil, eben weil der eine arbeitet, muß der andere sich ausruhen ... Die endlose Vervielfältigung der Produktivkräfte der Arbeit kann also kein andres Resultat haben als die Zunahme des Luxus und der Genüsse der müßigen Reichen.“⁹²

⁹² Sismondi, l.c., t. I, p. 79, 80, 85.

677:4–5 Destutt de Tracy endlich, der fischblütige Bourgeoisdoktrinär, spricht es brutal aus:

„Die armen Nationen sind die, wo das Volk gut dran ist, und die reichen Nationen sind die, wo es gewöhnlich arm ist.“⁹³

⁹³ Destutt de Tracy, l.c. p. 231. „Les nations pauvres, c’est là où le peuple est à son aise; et les nations riches, c’est là où il est ordinairement pauvre.“

Question 1296 What is the General Law of Capitalist Accumulation? [2013fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#), [2005fa](#), [2004fa](#), [1999SP](#), [1998WI](#), [1997WI](#).

Question 1297 After describing how capital shapes the technology of the production process and even controls the supply of labor, did Marx overlook that capital would not be able to overcome the ecological limits of planet Earth? [2009fa](#).

Term Paper Topic 1298 Term Paper on the Externalities of Capitalism, i.e., on the positive and negative local and global impacts of production in the name of profits. [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#), [2008fa](#), [2008SP](#), [2007fa](#).

Question 1302 If capitalism is as bad as Marx says, why isn’t there an open rebellion against it? [2013fa](#), [2012fa](#), [2011fa](#), [2010fa](#), [2009fa](#).

Question 1303 Give Hans Feedback from a Careful Reading of his Annotations. Email Hans if you would like to do this as an extra credit assignment.

Part VIII.

**The So-Called Original
Accumulation**

The usual translation of

“*ursprüngliche Akkumulation*” is

“primitive accumulation.”

The presentation of the laws of capitalism in the first volume culminates in the laws of the “accumulation of capital” (part VII). Capital is both a thing, and a social relation; therefore the accumulation of capital is not only the piling up of things, but the reproduction and expansion of a social relation on a larger and larger scale. Not only does the quantity of capital in the hands of the capitalists increase, but also the exploitable population is increased and supplied in a relative surplus (the reserve army of the unemployed). The “so-called original accumulation,” which is the subject of the eighth and last part of volume 1, describes the historic, *non-capitalistic* prerequisites that lead to capitalism, the “pre-history of capitalism.” And just as accumulation is not only the accumulation of money, but the reproduction on an extended scale of all the conditions necessary for capitalism, so also the original accumulation addresses not only the question where the first capitalists received their money from to set up their first enterprises, but investigates the origin of all the conditions of capitalism, e.g., how the means of production and free labor become available on the market. The creation of the proletariat is the most fundamental among these conditions.

Question 1304 *Why does Marx speak here of “so-called” original accumulation, instead of simply the original accumulation?*

26. The Secret of Original Accumulation

1. [An Original Accumulation Must Have Preceded Capitalism]

The chapter begins with a one-sentence summary of the content of chapters One through Twenty-Five:

704:1 We have seen how money is changed into capital; how through capital surplus-value is made, and from surplus-value more capital.

741:1 Man hat gesehen, wie Geld in Kapital verwandelt, durch Kapital Mehrwert und aus Mehrwert mehr Kapital gemacht wird.

↑ Part II showed how money is changed into capital, parts III-VI how capital generates surplus-value, and part VII showed how surplus-value is converted back into capital. ↓ If one compares this evolutionary presentation of the topics in the book with the causality at work in an ongoing capitalist system, one would expect that the more developed processes and mechanisms, i.e., those that came later in the book, “pre-suppose” the simpler processes and mechanisms, i.e., depend for their own functioning on the functioning of the latter. In part, this expectation is borne out, but in part it is not:

But the accumulation of capital pre-supposes surplus-value; surplus-value pre-supposes capitalistic production; capitalistic production pre-supposes the pre-existence of considerable masses of capital and of labor-power in the hands of producers of commodities.

Indes setzt die Akkumulation des Kapitals den Mehrwert, der Mehrwert die kapitalistische Produktion, diese aber das Vorhandensein größerer Massen von Kapital und Arbeitskraft in den Händen von Warenproduzenten voraus.

↑ There is no surprise that capital can only be accumulated if surplus-value is produced, and that in commodity production surplus-value can only be produced by capital. Here the later concepts pre-suppose the earlier concepts. Marx could have continued in this direction and said that capitalist production pre-supposes money and commodity production, in this way arriving at the beginning of the book. This would have been true but this would not have been a listing of all the presuppositions. Capitalist production also presupposes the separation of the producers from the means of production and the concentration of the means of production in the hands of the capitalists. But these are the *effects* of accumulation! ↓ I.e., instead of going further to the front of the book part of the causal chain bends back and goes to the end of the book again. Causality goes in a circle.

The whole movement, therefore, seems to turn in a defective circle, out of which we can only get by supposing an “original” accumulation (Adam Smith’s “previous accumulation”) preceding capitalistic accumula-

Diese ganze Bewegung scheint sich also in einem fehlerhaften Kreislauf herumzudrehn, aus dem wir nur herauskommen, indem wir eine der kapitalistischen Akkumulation vorausgehende „ursprüngliche“ Ak-

26. The Secret of Original Accumulation

tion; an accumulation which is not the result of the capitalistic mode of production, but its starting point.

kumulation („previous accumulation“ bei Adam Smith) unterstellen, eine Akkumulation, welche nicht das Resultat der kapitalistischen Produktionsweise ist, sondern ihr Ausgangspunkt.

↑ As was the case several times in this book, Marx uncovers a problematic which a naive reader would not even have noticed. And in the same sentence, Marx immediately furnishes a solution to this problematic.

Perhaps Marx's reasoning will be easier to understand if we look at a different situation in which this same procedure can be applied. A good example for circular causality is an internal combustion engine. If you try to explain how it works you will probably say that the pistons are compressed by the revolving motor, and then the spark plug fires and the explosion turns the motor forward. In other words, you must assume that the motor is already running in order to explain how it runs. This is not an erroneous explanation but we all know that internal combustion engines cannot start on their own. They need a starter which is based on a different principle, usually an electric motor, to turn over the engine before the mechanisms involving the air-and-gasoline mixture and the spark plugs can take over.

The accumulation of capital has a similar character. The mechanisms explored in chapters 1–25 can only explain capitalism on the basis of an already existing polarization of wealth and poverty, where the workers who have nothing to sell than their labor-power are on the one side, and the capitalists who have enough money to employ these laborers are on the other. The development earlier in the book explained how these mechanisms re-create the polarization, but without this polarization, these mechanisms will never get off the ground.

Capital accumulation must therefore have been started by a mechanism of a different nature. Marx argues that a non-capitalistic original accumulation must be tucked away somewhere in the history of capitalism in the same way as an engineer investigating the internal combustion engine of a car would come to the conclusion that a starter must be tucked away somewhere under the hood of this car. A very similar argument was made already in 619:1/o. The title of the chapter is *so-called* original accumulation, because this is an accumulation of capital which does not follow the laws of accumulation developed in chapter Twenty-Five.

Question 1305 *Do you know of other circularities in the economy?*

2. [The Mainstream Version of Original Accumulation]

↓ Mainstream economics has its own version of a historical event at the beginning of capitalism. However instead of seeing it as a phase of accumulation *preceding* capitalist accumulation, this historical event is taken to be the cause of capitalist social relations themselves. Marx sees here parallels to the fable of the original sin:

This original accumulation plays in Political Economy about the same part as original sin in theology. Adam bit the apple, and thereupon sin fell on the human race. The origin of sin is explained by telling the original sin as an anecdote of the past.

741:2/o Diese ursprüngliche Akkumulation spielt in der politischen Ökonomie ungefähr dieselbe Rolle wie der Sündenfall in der Theologie. Adam biß in den Apfel, und damit kam über das Menschengeschlecht die Sünde. Ihr Ursprung wird erklärt, indem er als Anekdote der Vergangenheit erzählt wird.

2. [The Mainstream Version of Original Accumulation]

↑ From the beginning, Marx dismisses the notion that an anecdote of the past can have caused either sin or capitalist social relations. He is a depth realist. He holds that the causal powers that shape the things we see are active enduring forces, possibly below the surface. Anecdotes, even if true, are transitory surface events. They can be the symptoms of enduring causal powers, but their own causal effects cannot be something as persistent as capitalist social relations. ↓ After this contemptuous introduction, Marx re-counts is the anecdote which supposedly explains capitalism:

In times long gone-by there were two sorts of people; one, the diligent, intelligent, and, above all, frugal elite; the other, lazy rascals, spending their substance, and more, in riotous living.

In einer längst verfloßnen Zeit gab es auf der einen Seite eine fleißige, intelligente und vor allem sparsame Elite und auf der andren faulenzende, ihr alles und mehr verjubilende Lumpen.

↓ What comes now is an “Achilles heel” critique in which Marx demolishes this anecdote even in its most favorable interpretation. If an anecdote is given as an explanation of capitalism, the most benevolent interpretation would be that this anecdote is a sign for the underlying forces shaping capitalism. This anecdote furnished to explain capitalism, however, cannot be a representation of the principles underlying capitalist social relations, because in this anecdote, the industrious will be wealthy, and the slothful will be poor. In capitalism the exact reverse is true: those who since long have ceased to work are wealthy and the industrious remain poor.

But whereas the legend of theological original sin tells us how man came to be condemned to eat his bread in the sweat of his brow, the history of economic original sin reveals why there are people who need not be bothered by such a necessity. Never mind!

Die Legende vom theologischen Sündenfall erzählt uns allerdings, wie der Mensch dazu verdammt worden sei, sein Brot im Schweiß seines Angesichts zu essen; die Historie vom ökonomischen Sündenfall aber enthüllt uns, wieso es Leute gibt, die das keineswegs nötig haben. Einerlei.

Question 1306 *Can the biblical original sin be given a meaning for human life which goes beyond an anecdote?*

↑ Marx has interjected this counterargument before even finishing the anecdote allegedly explaining capitalism. ↓ Here is the end of the anecdote:

Thus it came to pass that the former sort accumulated wealth, and the latter sort had at last nothing to sell except their own skins.

So kam es, daß die ersten Reichtum akkumulierten und die letzteren schließlich nichts zu verkaufen hatten als ihre eigene Haut.

↓ Even apart from the discrepancy between this anecdote and the mechanics of today's capitalism, Marx argues next that an event from the past cannot be the reason for the increasingly unequal outcomes witnessed today:

And from this original sin dates the poverty of the great majority that, despite all its labor, has up to now nothing to sell but itself, and the wealth of the few that increases constantly although they have long ceased to work.

Und von diesem Sündenfall datiert die Armut der großen Masse, die immer noch, aller Arbeit zum Trotz, nichts zu verkaufen hat als sich selbst, und der Reichtum der wenigen, der fortwährend wächst, obgleich sie längst aufgehört haben zu arbeiten.

↑ Indeed, the original accumulation as Marx understands it (which looks quite different than the above anecdote) only *started* a process which since then has reproduced and augmented itself by capitalism's own mechanics. ↓ Now Marx switches metaphors from

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original sin to children's fable. The above anecdote implies that the profits of the capitalists exist because they are morally justified. Such an irrealist "explanation" is mere apology:

Such insipid childishness is every day preached to us in the defence of property. M. Thiers, e.g., had the assurance to repeat it with all the solemnity of a statesman to the French people, once so *spirituel*. But as soon as the question of property crops up, it becomes a sacred duty to proclaim the intellectual food of the infant as the one thing fit for all ages and for all stages of development.

Solche fade Kinderei kaut Herr Thiers z.B. noch mit staatsfeierlichem Ernst, zur Verteidigung der propriété, den einst so geistreichen Franzosen vor. Aber sobald die Eigentumsfrage ins Spiel kommt, wird es heilige Pflicht, den Standpunkt der Kinderfibel als den allen Altersklassen und Entwicklungsstufen allein gerechten festzuhalten.

⇓ The moralistic childrens-tale character of the above anecdote also precludes another benevolent interpretation of it: it cannot be representative of the history of capitalism because this history is notorious for its violence, while the above anecdote has no trace of violence.

In actual history it is notorious that conquest, enslavement, robbery, murder, briefly force, play the great part. In the tender annals of Political Economy, the idyllic reigns from time immemorial. Right and "labor" were from all time the sole means of enrichment, the present year of course always excepted. As a matter of fact, the methods of original accumulation are anything but idyllic.

In der wirklichen Geschichte spielen bekanntlich Eroberung, Unterjochung, Raubmord, kurz Gewalt die große Rolle. In der sanften politischen Ökonomie herrschte von jeher die Idylle. Recht und „Arbeit“ waren von jeher die einzigen Bereicherungsmittel, natürlich mit jedesmaliger Ausnahme von „diesem Jahr“. In der Tat sind die Methoden der ursprünglichen Akkumulation alles andre, nur nicht idyllisch.

3. [What Did Original Accumulation Consist In?]

⇓ In order to develop his own explanation of original accumulation, Marx first asks what kind of process is needed to resolve the circularity in the explanation of capital accumulation given in *Capital*. Marx takes us to the point in the book where the order in which the mechanisms active in today's capitalism are presented deviates from the causality in the capitalist system itself. The transition from money to capital, discussed in chapters Four through Six, not only requires a certain degree of development of commodity circulation (which came earlier in the book) but in addition the separation of the direct producers from the means of production (which will later in the book be seen to be one of the results of capital accumulation):

In themselves money and commodities are no more capital than are the means of production and of subsistence. They want transforming into capital. But this transformation itself can only take place under certain circumstances that centre in this, viz., that two very different kinds of commodity-possessors must come face to face and into contact, on the one hand, the owners of money, means of production, means of sub-

742:1 Geld und Ware sind nicht von vornherein Kapital, sowenig wie Produktions- und Lebensmittel. Sie bedürfen der Verwandlung in Kapital. Diese Verwandlung selbst aber kann nur unter bestimmten Umständen vorgehn, die sich dahin zusammenspitzen: Zweierlei sehr verschiedene Sorten von Warenbesitzern müssen sich gegenüber und in Kontakt treten, einerseits Eigner von Geld, Produktions- und Lebensmitteln, de-

3. [What Did Original Accumulation Consist In?]

sistence, who are eager to increase the sum of values they possess, by buying other people's labor-power; on the other hand, free laborers, the sellers of their own labor-power, and therefore the sellers of labor.

nen es gilt, die von ihnen geeignete Wertsomme zu verwerten durch Ankauf fremder Arbeitskraft; andererseits freie Arbeiter, Verkäufer der eignen Arbeitskraft und daher Verkäufer von Arbeit.

First sentence has the meaning:
money and commodity are not by

themselves capital, and means of
production and of subsistence are

not by themselves capital either.

↓ Now the conditions under which labor-power will be offered as a commodity:

Free laborers, in the double sense that neither they themselves form part and parcel of the means of production, as in the case of slaves, bondsmen, etc., nor do the means of production belong to them, as in the case of peasant-proprietors; they are, therefore, free from, unencumbered by, any means of production of their own.

Freie Arbeiter in dem Doppelsinn, daß weder sie selbst unmittelbar zu den Produktionsmitteln gehören, wie Sklaven, Leibeigne usw., noch auch die Produktionsmittel ihnen gehören, wie beim selbstwirtschaftenden Bauer usw., sie davon vielmehr frei, los und ledig sind.

↑ This double freedom has already been introduced in chapter Six, 179:2. ↓ The polarization of the market between capitalist and laborer therefore presupposes the separation of the laborers from the means of production.

With this polarization of the market for commodities, the fundamental conditions of capitalist production are given. The capitalist system pre-supposes the complete separation of the laborers from all property in the means by which they can realize their labor.

Mit dieser Polarisation des Warenmarkts sind die Grundbedingungen der kapitalistischen Produktion gegeben. Das Kapitalverhältnis setzt die Scheidung zwischen den Arbeitern und dem Eigentum an den Verwirklichungsbedingungen der Arbeit voraus.

↑ Without this separation, capitalism cannot get started; ↓ but once capitalism has started, it reproduces this separation.

As soon as capitalist production is once on its own legs, it not only maintains this separation, but reproduces it on a continually extending scale.

Sobald die kapitalistische Produktion einmal auf eignen Füßen steht, erhält sie nicht nur jene Scheidung, sondern reproduziert sie auf stets wachsender Stufenleiter.

↓ The "original accumulation" must therefore be the process which originally generates this separation.

The process, therefore, that clears the way for the capitalist system, can be none other than the process which takes away from the laborer the possession of his means of production; a process that transforms, on the one hand, the social means of subsistence and of production into capital, on the other, the immediate producers into wage-laborers. The so-called original accumulation, therefore, is nothing else than the historical process of divorcing the producer from the means of production. It appears

Der Prozeß, der das Kapitalverhältnis schafft, kann also nichts anderes sein als der Scheidungsprozeß des Arbeiters vom Eigentum an seinen Arbeitsbedingungen, ein Prozeß, der einerseits die gesellschaftlichen Lebens- und Produktionsmittel in Kapital verwandelt, andererseits die unmittelbaren Produzenten in Lohnarbeiter. Die sog. ursprüngliche Akkumulation ist also nichts als der historische Scheidungsprozeß von Produzent und Produktionsmittel. Er erscheint als „ursprünglich“, weil er die Vorgeschichte des

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as “original,” because it constitutes the pre-historic stage of capital and of the mode of production corresponding with it.

Kapitals und der ihm entsprechenden Produktionsweise bildet.

Question 1307 *Part Eight of the book is called “So-Called Original Accumulation.” Why so-called? Was it an accumulation or was it not? Chapter Twenty-Six is called “The Secret of Original Accumulation.” What is the secret of original accumulation?*

4. [History of the Separation of the Producers from the Means of Production]

↓ Now Marx plunges, without further ado, into an analytical description of this historical process:

The economic structure of capitalist society has grown out of the economic structure of feudal society. The dissolution of the latter set free the elements of the former.

743:1 Die ökonomische Struktur der kapitalistischen Gesellschaft ist hervorgegangen aus der ökonomischen Struktur der feudalen Gesellschaft. Die Auflösung dieser hat die Elemente jener freigesetzt.

↑ In the feudal system, the elements (labor and objective conditions of labor) are still connected. The dissolution of the feudal system is the *separation* of these elements. The next two paragraphs describe the formation of working class and capitalist class from their feudal roots. ↓ First the working class.

The immediate producer, the laborer, could only dispose of his own person after he had ceased to be attached to the soil and ceased to be the slave, serf, or bondsman of another. To become a free seller of labor-power, who carries his commodity wherever he finds a market, he must further have escaped from the regime of the guilds, their rules for apprentices and journeymen, and the impediments of their labor regulations. Hence, the historical movement which changes the producers into wage-workers, appears, on the one hand, as their emancipation from serfdom and from the fetters of the guilds, and this side alone exists for our bourgeois historians.

743:2 Der unmittelbare Produzent, der Arbeiter, konnte erst dann über seine Person verfügen, nachdem er aufgehört hatte, an die Scholle gefesselt und einer andern Person leibeigen oder hörig zu sein. Um freier Verkäufer von Arbeitskraft zu werden, der seine Ware überall hinträgt, wo sie einen Markt findet, mußte er ferner der Herrschaft der Zünfte, ihren Lehrlings- und Gesellenordnungen und hemmenden Arbeitsvorschriften entronnen sein. Somit erscheint die geschichtliche Bewegung, die die Produzenten in Lohnarbeiter verwandelt, einerseits als ihre Befreiung von Dienstbarkeit und Zunftzwang; und diese Seite allein existiert für unsre bürgerlichen Geschichtschreiber.

In chapter Six, 179:2 and elsewhere, Marx had concluded that, for capitalism to function, the laborer must be free in a double sense, which can be summarized as “free from” and “free to.” Now we see that the historical genesis of the capitalist working class has two aspects exactly along these lines. ↑ Only one of these aspects is acknowledged in mainstream history books, namely the “freedom to.” ↓ But there is also a “freedom from” aspect, which was a bloody process:

But, on the other hand, these new freedmen became sellers of themselves only after they

Andrerseits aber werden diese Neubefreiten erst Verkäufer ihrer selbst, nachdem ihnen

4. [History of the Separation of the Producers from the Means of Production]

had been robbed of all their own means of production, and of all the guarantees of existence afforded by the old feudal arrangements. And the history of this, their expropriation, is written in the annals of mankind in letters of blood and fire.

↓ The capitalist class had to develop too. First Marx describes the progressive aspect of this development:

The industrial capitalists, these new potentates, had on their part not only to displace the guild masters of handicrafts, but also the feudal lords, the possessors of the sources of wealth. In this respect, their conquest of social power appears as the fruit of a victorious struggle both against feudal lordship and its revolting prerogatives, and against the guilds and the fetters they laid on the free development of production and the free exploitation of man by man.

alle ihre Produktionsmittel und alle durch die alten feudalen Einrichtungen gebotenen Garantien ihrer Existenz geraubt sind. Und die Geschichte dieser ihrer Expropriation ist in die Annalen der Menschheit eingeschrieben mit Zügen von Blut und Feuer.

743:3 Die industriellen Kapitalisten, diese neuen Potentaten, mußten ihrerseits nicht nur die zünftigen Handwerksmeister verdrängen, sondern auch die im Besitz der Reichtumsquellen befindlichen Feudalherren. Von dieser Seite stellt sich ihr Emporkommen dar als Frucht eines siegreichen Kampfes gegen die Feudalmacht und ihre empörenden Vorrechte sowie gegen die Zünfte und die Fesseln, die diese der freien Entwicklung der Produktion und der freien Ausbeutung des Menschen durch den Menschen angelegt.

↓ Now Marx says: they were victorious in this struggle only because of events which they themselves did not initiate:

The chevaliers d'industrie, however, only succeeded in supplanting the chevaliers of the sword by making use of events of which they themselves were wholly innocent. They have risen by means as vile as those by which the Roman freedman once on a time made himself the master of his patronus.

Die Ritter von der Industrie brachten es jedoch nur fertig, die Ritter vom Degen zu verdrängen, dadurch, daß sie Ereignisse ausbeuteten, an denen sie ganz unschuldig waren. Sie haben sich emporgeschwungen durch Mittel, ebenso gemein wie die, wodurch der römische Freigelassene sich einst zum Herrn seines patronus gemacht hat.

Question 1308 *Why did the capitalists fight against the feudal lords, why against the guild masters?*

↑ The above two paragraphs contain, more or less explicitly, interesting world-historical interpretations. The proletariat evolved by the inexorable dialectic of freedom to and freedom from, while the capitalists became what they are by events not of their own making. Not the capitalists but the landowners expropriated the wage laborers, and the main source of capital came from the discovery of the New World. ↓ And although capitalist exploitation, in the grand scheme of things, is the next step after feudal exploitation, it arose not from feudalism itself but from the dissolution of feudalism:

The starting-point of the development that gave rise to the wage-laborer as well as to the capitalist, was the servitude of the laborer. The advance consisted in a change of form of this servitude, in the transformation of feudal exploitation into capitalist

743:4 Der Ausgangspunkt der Entwicklung, die sowohl den Lohnarbeiter wie den Kapitalisten erzeugt, war die Knechtschaft des Arbeiters. Der Fortgang bestand in einem Formwechsel dieser Knechtung, in der Verwandlung der feudalen in kapitalistische

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exploitation. To understand its march, we need not go back very far. Although we come across the first beginnings of capitalist production as early as the 14th or 15th century, sporadically, in certain towns of the Mediterranean, the capitalistic era dates from the 16th century. Wherever it appears, the abolition of serfdom has been long effected, and the highest development of the middle ages, the existence of sovereign towns, has been long on the wane.

Exploitation. Um ihren Gang zu verstehn, brauchen wir gar nicht so weit zurückzugreifen. Obgleich die ersten Anfänge kapitalistischer Produktion uns schon im 14. und 15. Jahrhundert in einigen Städten am Mittelmeer sporadisch entgegenreten, datiert die kapitalistische Ära erst vom 16. Jahrhundert. Dort, wo sie auftritt, ist die Aufhebung der Leibeigenschaft längst vollbracht und der Glanzpunkt des Mittelalters, der Bestand souveräner Städte, seit geraumer Zeit im Erbleichen.

Question 1309 *What is the relationship between the origin of the capitalist class and the origin of the working class? What came first?*

This is all the historical generalization offered by Marx, i.e., this is the “secret” of original accumulation.

5. [Consequential Contingencies]

⇓ Other than this, there is, as always in history, a lot of contingency. The last paragraph gives an overview of the most relevant contingencies, which is at the same time the transition to the next chapters.

In the history of original accumulation, all revolutions are epoch-making that act as levers for the capital class in course of formation; but, above all, those moments when great masses of men are suddenly and forcibly torn from their means of subsistence, and hurled as free and “unattached” proletarians on the labor market. The expropriation of the agricultural producer, of the peasant, from the soil, is the basis of the whole process. The history of this expropriation, in different countries, assumes different aspects, and runs through its various phases in different orders of succession, and at different periods. In England alone, which we take as our example, has it the classic form.¹⁸⁹

744:1 Historisch epochemachend in der Geschichte der ursprünglichen Akkumulation sind alle Umwälzungen, die der sich bildenden Kapitalistenklasse als Hebel dienen; vor allem aber die Momente, worin große Menschenmassen plötzlich und gewaltsam von ihren Subsistenzmitteln losgerissen und als vogelfreie Proletarier auf den Arbeitsmarkt geschleudert werden. Die Expropriation des ländlichen Produzenten, des Bauern, von Grund und Boden bildet die Grundlage des ganzen Prozesses. Ihre Geschichte nimmt in verschiedenen Ländern verschiedene Färbung an und durchläuft die verschiedenen Phasen in verschiedener Reihenfolge und in verschiedenen Geschichtsepochen. Nur in England, das wir daher als Beispiel nehmen, besitzt sie klassische Form.¹⁸⁹

Marx will mainly discuss England, but the footnote gives a brief survey of the development in Italy:

¹⁸⁹ In Italy, where capitalistic production developed earliest, the dissolution of serfdom also took place earlier than elsewhere. The serf was

¹⁸⁹ In Italien, wo die kapitalistische Produktion sich am frühesten entwickelt, findet auch die Auflösung der Leibeigenschaftsverhältnisse am

5. [Consequential Contingencies]

emancipated in that country before he had acquired any prescriptive right to the soil. His emancipation at once transformed him into a free proletarian, who, moreover, found his master ready and waiting for him in the towns, for the most part handed down as legacies from the Roman time. When the revolution of the world-market, about the end of the 15th century, annihilated Northern Italy's commercial supremacy, a movement in the reverse direction set in. The laborers of the towns were driven *en masse* into the country, and gave an impulse, never before seen, to the *petite culture*, carried on in the form of gardening.

frühsten statt. Der Leibeigne wird hier emanzipiert, bevor er irgendein Recht der Verjährung an Grund und Boden gesichert hat. Seine Emanzipation verwandelt ihn also sofort in einen vogelfreien Proletarier, der überdem in den meist schon aus der Römerzeit überlieferten Städten die neuen Herren fertig vorfindet. Als die Revolution des Weltmarkts seit Ende des 15. Jahrhunderts die Handelssuprematie Norditaliens vernichtete, entstand eine Bewegung in umgekehrter Richtung. Die Arbeiter der Städte wurden massenweise aufs Land getrieben und gaben dort der nach Art des Gartenbaus getriebenen, kleinen Kultur einen nie gesehenen Aufschwung.

Question 1310 *What is the difference between the laws of the origin of capitalism and the laws of development of the already existing capitalism?*

32. Historical Tendency of Capitalist Accumulation

At the beginning of chapter Twenty-Six, in 704:1, Marx jumped out of the discussion of capitalist accumulation itself in order to discuss its prerequisite, the historical process of original accumulation. In chapter Thirty-Two, Marx looks at both processes together, capitalism and the processes leading up to capitalism, and identifies in them the movement of private property based on the ownership of the means of production by the laborer to private property based on the ownership of the means of production by someone other than the laborer. This overarching historical tendency allows him to derive a glimpse of what to expect after capitalism. In the first half of this short chapter, Marx looks at the historical changes associated with original accumulation, then at those associated with capitalist accumulation, and finally he extrapolates into the future by a negation of a negation. As is often his style, Marx plunges right in, assuming the reader is aware of the question on the agenda:

1. [From Petty Production to Capitalism]

What is at the bottom of the original accumulation of capital, *i.e.*, of the historical genesis of capital? In so far as it is not immediate transformation of slaves and serfs into wage-laborers, *i.e.*, a mere change of form, it simply means the expropriation of the immediate producers, *i.e.*, the dissolution of private property based on the labor of its owner.

↑ In the grand historical view, part of original accumulation is merely a form change: exploitation of one kind (slavery, bondage) is replaced by exploitation of another kind (wage labor). But Marx is interested here in that part of original accumulation which is not a form change. Marx claims that it can be characterized as the “dissolution of private property based on labor.” ↓ This dissolution is a dialectical process reminiscent of the inversion of the law of appropriation discussed in 582:1/o.

Private property, as opposed to social, collective property, exists only where the means of labor and the external conditions of labor belong to private individuals. And private property has a different character according to whether these private individuals are the laborers or non-laborers. The countless shades, that it at first sight presents, correspond to the intermediate stages lying be-

789:1 Worauf kommt die ursprüngliche Akkumulation des Kapitals, d.h. seine historische Genesis, hinaus? Soweit sie nicht unmittelbare Verwandlung von Sklaven und Leibeignen in Lohnarbeiter, also bloßer Formwechsel ist, bedeutet sie nur die Expropriation der unmittelbaren Produzenten, d.h. die Auflösung des auf eigener Arbeit beruhenden Privateigentums.

789:2 Privateigentum, als Gegensatz zum gesellschaftlichen, kollektiven Eigentum, besteht nur da, wo die Arbeitsmittel und die äußeren Bedingungen der Arbeit Privatleuten gehören. Je nachdem aber diese Privatleute die Arbeiter oder die Nichtarbeiter sind, hat auch das Privateigentum einen andern Charakter. Die unendlichen Schattierungen, die es auf den ersten Blick darbietet,

tween these two extremes.

spiegeln nur die zwischen diesen beiden Extremen liegenden Zwischenzustände wider.

Question 1311 *Marx claims that all the different variations of private property which one can observe in history are the intermediate states between two extremes. What are these extremes, and give an example of a state which is an intermediate state not coinciding with one of the extremes.*

↓ One of these two extremes, the private property of the means of production by the worker (petty production), plays a pivotal role in the development of productivity:

The private property of the laborer in his means of production is the foundation of petty industry, whether agricultural, manufacturing, or both; petty industry, again, is an essential condition for the development of social production and of the free individuality of the laborer himself. It is true, the petty mode of production exists also under slavery, serfdom, and other states of dependence. But it flourishes, it lets loose its whole energy, it attains its adequate classical form, only where the laborer is the private owner of his own means of labor set in action by himself: the peasant of the land which he cultivates, the artisan of the tool which he handles as a virtuoso.

789:3 Das Privateigentum des Arbeiters an seinen Produktionsmitteln ist die Grundlage des Kleinbetriebs, der Kleinbetrieb eine notwendige Bedingung für die Entwicklung der gesellschaftlichen Produktion und der freien Individualität des Arbeiters selbst. Allerdings existiert diese Produktionsweise auch innerhalb der Sklaverei, Leibeigenschaft und anderer Abhängigkeitsverhältnisse. Aber sie blüht nur, schnellst nur ihre ganze Energie, erobert nur die adäquate klassische Form, wo der Arbeiter freier Privateigentümer seiner von ihm selbst gehandhabten Arbeitsbedingungen ist, der Bauer des Ackers, den er bestellt, der Handwerker des Instruments, worauf er als Virtuose spielt.

↑ In petty production, productivity will only reach its full potential if the worker owns the means of production. ↓ But even where it reaches its full potential, the petty mode of production is limited:

This mode of production pre-supposes parcelling of the soil and scattering of the other means of production. As it excludes the concentration of these means of production, so also it excludes co-operation, division of labor within each separate process of production, the social domination and regulation of nature, and the free development of the social productive powers.

789:4/o Diese Produktionsweise unterstellt Zersplitterung des Bodens und der übrigen Produktionsmittel. Wie die Konzentration der letzteren, so schließt sie auch die Kooperation, Teilung der Arbeit innerhalb derselben Produktionsprozesse, gesellschaftliche Beherrschung und Regelung der Natur, freie Entwicklung der gesellschaftlichen Produktivkräfte aus.

This is a contradiction: On the one hand, petty production furthers productive forces, and on the other it limits them. And the more developed the attained productive forces already are, the more debilitating these limits become. ↓ Maintaining these limits would therefore mean to forego further developments in productivity:

It is compatible only with a system of production, and a society, moving within narrow and more or less primitive bounds. To perpetuate it would be, as Pecqueur rightly says, "to decree universal mediocrity".

Sie ist nur verträglich mit engen naturwüchsig- gen Schranken der Produktion und der Gesellschaft. Sie verewigen wollen hieße, wie Pecqueur mit Recht sagt, „die allgemeine Mittelmäßigkeit dekretieren“.

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↑ Note that in Marx's eyes, the bounds limiting production are at the same time bounds limiting society. ↓ Rise in productivity not only make the annihilation of petty production necessary, but also creates the means by which it can be annihilated:

At a certain stage of development, it brings forth the material agencies for its own annihilation. From that moment new forces and new passions spring up in the bosom of society; but the old social organization fetters them and keeps them down. It must be annihilated; it is annihilated.

Auf einem gewissen Höhegrad bringt sie die materiellen Mittel ihrer eignen Vernichtung zur Welt. Von diesem Augenblick regen sich Kräfte und Leidenschaften im Gesellschaftsschoße, welche sich von ihr gefesselt fühlen. Sie muß vernichtet werden, sie wird vernichtet.

↑ Once the material means for the annihilation of petty production are in existence, social forces spring into existence which annihilate it. ↓ This annihilation is the original accumulation.

Its annihilation, the transformation of the individualized and scattered means of production into socially concentrated ones, of the tiny property of the many into the huge property of the few, the expropriation of the great mass of the people from the soil, from the means of subsistence, and from the means of labor, this terrifying and painful expropriation of the mass of the people forms the prelude to the history of capital.

Ihre Vernichtung, die Verwandlung der individuellen und zersplitterten Produktionsmittel in gesellschaftlich konzentrierte, daher des zwerghaften Eigentums vieler in das massenhafte Eigentum weniger, daher die Expropriation der großen Volksmasse von Grund und Boden und Lebensmitteln und Arbeitsinstrumenten, diese furchtbare und schwierige Expropriation der Volksmasse bildet die Vorgeschichte des Kapitals.

↑ The mass of the people must be torn away from the resource that is most important to them: their means of production. ↓ This is a violent process, fueled by infamous passions, and the result is private property based on exploitation:

It comprises a series of violent methods, of which we have passed in review only those that have been epoch-making as methods of the original accumulation of capital. The expropriation of the immediate producers was accomplished with merciless vandalism, and under the stimulus of passions the most infamous, the most sordid, the pettiest, the most meanly odious. Self-earned private property, that is based, so to say, on the fusing together of the isolated, independent laboring-individual with the conditions of his labor, is supplanted by capitalistic private property, which rests on exploitation of the nominally free labor of others, *i.e.*, on wage-labor.²⁵¹

Sie umfaßt eine Reihe gewaltsamer Methoden, wovon wir nur die epochemachenden als Methoden der ursprünglichen Akkumulation des Kapitals Revue passieren ließen. Die Expropriation der unmittelbaren Produzenten wird mit schonungslosestem Vandalismus und unter dem Trieb der infamsten, schmutzigsten, kleinlichst gehässigsten Leidenschaften vollbracht. Das selbsterarbeitete, sozusagen auf Verwachsung des einzelnen, unabhängigen Arbeitsindividuums mit seinen Arbeitsbedingungen beruhende Privateigentum wird verdrängt durch das kapitalistische Privateigentum, welches auf Exploitation fremder, aber formell freier Arbeit beruht.²⁵¹

↑ Marx mentions here the free laborer, because free from and free to are connected.

²⁵¹ "Nous sommes dans une condition tout-à-fait nouvelle de la société ... nous tendons à séparer toute espèce de propriété d'avec toute espèce de travail." (Sismondi: "Nouveaux Principes d'Écon. Polit." t. II, p. 434.)

²⁵¹ „Wir befinden uns in einer Lage, die für die Gesellschaft gänzlich neu ist ... wir streben dahin, jede Art Eigentum von jeder Art Arbeit zu trennen.“ (Sismondi, „Nouveaux Principes de l'Écon. Polit.“, t. II, p. 434.)

2. [Capitalism and the Processes Undermining Capitalism]

⇓ The introduction of capitalism does not end this tendency towards an increasing socialization of labor but gives it a new form: the expropriation of the small capitalists, a continuing centralisation and socialisation of labor which becomes incompatible with the capitalist shell. Not only small capitalists must be expropriated but all capitalists, i.e., capitalist private property must be abolished as well.

As soon as this process of transformation has sufficiently decomposed the old society from top to bottom, as soon as the laborers are turned into proletarians, their means of labor into capital, as soon as the capitalist mode of production stands on its own feet, then the further socialization of labor and further transformation of the land and other means of production into socially exploited and, therefore, common means of production, as well as the further expropriation of private proprietors, takes a new form.

790:1 Sobald dieser Umwandlungsprozeß nach Tiefe und Umfang die alte Gesellschaft hinreichend zersetzt hat, sobald die Arbeiter in Proletarier, ihre Arbeitsbedingungen in Kapital verwandelt sind, sobald die kapitalistische Produktionsweise auf eignen Füßen steht, gewinnt die weitere Vergesellschaftung der Arbeit und weitere Verwandlung der Erde und anderer Produktionsmittel in gesellschaftlich ausgebeutete, also gemeinschaftliche Produktionsmittel, daher die weitere Expropriation der Privateigentümer, eine neue Form.

Before describing this new form of socialization of labor, Marx says what further socialization of labor entails:

That which is now to be expropriated is no longer the laborer working for himself, but the capitalist exploiting many laborers.

How are the capitalists expropriated?

This expropriation is accomplished by the action of the immanent laws of capitalist production itself, by the centralization of capital. One capitalist always kills many. Hand in hand with this centralization, or this expropriation of many capitalists by few, develop, on an ever-extending scale, the co-operative form of the labor-process, the conscious technical application of science, the methodical cultivation of the soil, the transformation of the instruments of labor into instruments of labor only usable in common, the economizing of all means of production by their use as means of production of combined, socialized labor, the entanglement of all peoples in the net of the world-market, and with this, the international character of the capitalistic regime.

Was jetzt zu expropriieren, ist nicht länger der selbstwirtschaftende Arbeiter, sondern der viele Arbeiter exploitierende Kapitalist.

790:2/o Diese Expropriation vollzieht sich durch das Spiel der immanenten Gesetze der kapitalistischen Produktion selbst, durch die Zentralisation der Kapitale. Je ein Kapitalist schlägt viele tot. Hand in Hand mit dieser Zentralisation oder der Expropriation vieler Kapitalisten durch wenige entwickelt sich die kooperative Form des Arbeitsprozesses auf stets wachsender Stufenleiter, die bewußte technische Anwendung der Wissenschaft, die planmäßige Ausbeutung der Erde, die Verwandlung der Arbeitsmittel in nur gemeinsam verwendbare Arbeitsmittel, die Ökonomisierung aller Produktionsmittel durch ihren Gebrauch als Produktionsmittel kombinierter, gesellschaftlicher Arbeit, die Verschlingung aller Völker in das Netz des Weltmarkts und damit der internationale Charakter des kapitalistischen Regimes.

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⇓ Now the implication of this historical process for the people involved, the capitalists and wage laborers:

Along with the constantly diminishing number of the magnates of capital, who usurp and monopolize all advantages of this process of transformation, grows the mass of misery, oppression, slavery, degradation, exploitation; but with this too grows the indignation of the working-class, a class always increasing in numbers, and trained, united, organized by the very mechanism of the process of capitalist production itself.

Mit der beständig abnehmenden Zahl der Kapitalmagnaten, welche alle Vorteile dieses Umwandlungsprozesses usurpieren und monopolisieren, wächst die Masse des Elends, des Drucks, der Knechtschaft, der Entartung, der Ausbeutung, aber auch die Empörung der stets anschwellenden und durch den Mechanismus des kapitalistischen Produktionsprozesses selbst geschulten, vereinten und organisierten Arbeiterklasse.

Not only ↑ a decreasing number of capitalists and a huge population suffering under *and* trained/organized by the system, but also ⇓ a contradiction with the same productive powers which this system called to life:

The monopoly of capital becomes a fetter upon the mode of production which has sprung up and flourished along with, and under it. Centralization of the means of production and socialization of labor at last reach a point where they become incompatible with their capitalist integument. Thus integument is burst asunder. The knell of capitalist private property sounds. The expropriators are expropriated.

Das Kapitalmonopol wird zur Fessel der Produktionsweise, die mit und unter ihm aufgeblüht ist. Die Zentralisation der Produktionsmittel und die Vergesellschaftung der Arbeit erreichen einen Punkt, wo sie unverträglich werden mit ihrer kapitalistischen Hülle. Sie wird gesprengt. Die Stunde des kapitalistischen Privateigentums schlägt. Die Expropriateurs werden expropriert.

3. [The Process as a Whole: Negation of Negation]

⇓ After looking at the two historical phases of the socialization of labor one by one, original accumulation and the expropriation of the capitalists, Marx looks now at the process as a whole, and remarks that it is a dialectical negation of negation. Capitalism is the negation of the private property based on own labor. But capitalism produces its own negation, the result of which will be the joint ownership of the means of production.

The capitalist mode of appropriation, the result of the capitalist mode of production, produces capitalist private property. This is the first negation of individual private property, as founded on the labor of the proprietor. But capitalist production begets, with the necessity of a natural process, its own negation.

791:1 Die aus der kapitalistischen Produktionsweise hervorgehende kapitalistische Aneignungsweise, daher das kapitalistische Privateigentum, ist die erste Negation des individuellen, auf eigne Arbeit gegründeten Privateigentums. Aber die kapitalistische Produktion erzeugt mit der Notwendigkeit eines Naturprozesses ihre eigne Negation.

↑ The accumulation and centralization of capital, the increases in productivity, and the class struggles, are social processes, carried on by individual agents. But they are as necessary, i.e., as independent of individual intentions, as a natural process would have been. Compare here 10:1.

Marx does not say here that the collapse of capitalism is inexorable. His comparison with

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a natural process only indicates that the *processes* which tend to undermine capitalism are inexorable. A fire is a natural process; it necessarily consumes everything combustible in its reach. This does not mean that any given building will necessarily collapse due to the fire.

In the Moore-Aveling translation, the last sentence above reads: "But capitalist production begets, with the inexorability of a law of Nature, its own negation."

"Inexorable" means: independent of what people may wish; this is an ok translation. But by substituting "law of nature" for "natural process" the translation

suggests that the collapse of capitalism itself is inexorable, rather than the processes working towards its collapse.

It is the negation of negation. This does not re-establish private property for the producer, but gives the producer individual property based on the achievements of the capitalist era, *i.e.*, on co-operation and the possession in common of the Earth and of the means of production.

Es ist Negation der Negation. Diese stellt nicht das Privateigentum wieder her, wohl aber das individuelle Eigentum auf Grundlage der Errungenschaft der kapitalistischen Ära: der Kooperation und des Gemeinbesitzes der Erde und der durch die Arbeit selbst produzierten Produktionsmittel.

↑ Marx's call for a change in ownership relations is, implicitly, a call for revolution. ↓ But Marx envisions this second transition to be much less painful than the first.

The transformation of scattered private property, arising from individual labor, into capitalist private property is, naturally, a process, incomparably more protracted, violent, and difficult, than the transformation of capitalistic private property, already practically resting on socialized production, into socialized property. In the former case, we had the expropriation of the mass of the people by a few usurpers; in the latter, we have the expropriation of a few usurpers by the mass of the people.²⁵²

791:2 Die Verwandlung des auf eigener Arbeit der Individuen beruhenden, zersplitterten Privateigentums in kapitalistisches ist natürlich ein Prozeß, ungleich mehr langwierig, hart und schwierig als die Verwandlung des tatsächlich bereits auf gesellschaftlichem Produktionsbetrieb beruhenden kapitalistischen Eigentums in gesellschaftliches. Dort handelte es sich um die Expropriation der Volksmasse durch wenige Usurpatoren, hier handelt es sich um die Expropriation weniger Usurpatoren durch die Volksmasse.²⁵²

The chapter ends with a footnote quoting the Communist Manifesto.

²⁵² The advance of industry, whose involuntary promoter is the bourgeoisie, replaces the isolation of the laborers, due to competition, by their revolutionary combination, due to association. The development of Modern Industry, therefore, cuts from under its feet the very foundation on which the bourgeoisie produces and appropriates products. What the bourgeoisie, therefore, produces, above all, are its own grave-diggers. Its fall and the victory of the proletariat are equally inevitable . . . Of all the classes that stand face-to-face with the bourgeoisie today, the proletariat alone is a really revolutionary class. The other classes perish and disappear in the face of Modern Industry, the proletariat is its special and essential product . . . The lower middle-classes, the small manufacturers, the shopkeepers, the arti-

²⁵² „Der Fortschritt der Industrie, dessen willenloser und widerstandloser Träger die Bourgeoisie ist, setzt an die Stelle der Isolierung der Arbeiter durch die Konkurrenz ihre revolutionäre Vereinigung durch die Assoziation. Mit der Entwicklung der großen Industrie wird also unter den Füßen der Bourgeoisie die Grundlage selbst weggezogen, worauf sie produziert und die Produkte sich aneignet. Sie produziert also vor allem ihre eignen Totengräber. Ihr Untergang und der Sieg des Proletariats sind gleich unvermeidlich . . . Von allen Klassen, welche heutzutage der Bourgeoisie gegenüberstehn, ist nur das Proletariat eine wirklich revolutionäre Klasse. Die übrigen Klassen verkommen und gehn unter mit der großen Industrie, das Proletariat ist ihr eigenstes Produkt. Die Mittelstände, der kleine Industri-

32. Historical Tendency of Capitalist Accumulation

san, the peasant, all these fight against the bourgeoisie, to save from extinction their existence as fractions of the middle-class . . . they are reactionary, for they try to roll back the wheel of history. Karl Marx and Friedrich Engels, “Manifest der Kommunistischen Partei”, London, 1848, pp. 9, 11.

elle, der kleine Kaufmann, der Handwerker, der Bauer, sie alle bekämpfen die Bourgeoisie, um ihre Existenz als Mittelstände vor dem Untergang zu sichern . . . sie sind reaktionär, denn sie suchen das Rad der Geschichte zurückzudrehn.“ (Karl Marx und F. Engels, „Manifest der Kommunistischen Partei“, London 1848, p. 11, 9).

Question 1312 *Are the property forms the main historical mover, or is technology the main historical mover?*

33. The Modern Theory of Colonization

Marx discusses colonies in the last chapter of *Capital I* because the situation in the colonies can almost be considered an experiment to verify some of the hypotheses about original accumulation. ↓ According to the footnote to the chapter title, the word “colony” is to be read in a social and economic, rather than a legal and political sense.

²⁵³ We treat here of real colonies—virgin soils colonized by free immigrants.

²⁵³ Es handelt sich hier von wirklichen Kolonien, jungfräulichem Boden, der durch freie Einwanderer kolonisiert wird.

↑ A colony in this definition is a country into which laborers can move for homesteading.

^{253 ctd} The United States still are, speaking economically, only a colony of Europe.

^{253 ctd} Die Vereinigten Staaten sind, ökonomisch gesprochen, immer noch Kolonialland Europas.

↑ Marx writes this in 1867 (first edition, [megaII/5]610:2). ↓ Which Plantations was Marx thinking of here?

^{253 ctd} By the way, to this category belong also those ancient plantations in which the abolition of slavery has completely altered the earlier conditions.

^{253 ctd} Übrigens gehören auch solche alten Pflanzungen hierher, wo die Aufhebung der Sklaverei die Verhältnisse gänzlich umgewälzt hat.

Question 1313 *Are the United States today, in the 21st century, economically speaking still a colony of Europe?*

Marx begins with the two forms of private property introduced in which correspond to the two forms of appropriation discussed in chapter Twenty-Four.

Political economy confuses on principle two very different kinds of private property, of which one rests on the producers’ own labor, the other on the employment of the labor of others. It forgets that the latter not only is the direct antithesis of the former, but also grows on its tomb only.

792:1 Die politische Ökonomie verwechselt prinzipiell zwei sehr verschiedene Sorten Privateigentum, wovon das eine auf eigener Arbeit des Produzenten beruht, das andre auf der Ausbeutung fremder Arbeit. Sie vergißt, daß das letztere nicht nur den direkten Gegensatz des erstren bildet, sondern auch bloß auf seinem Grab wächst.

↑ The opposition is so strict that they cannot coexist, the second kind can only take off when the first kind is destroyed.

Question 1314 *Why can the private property based on the exploitation of others only grow on the tomb of the private property based on own labor?*

The next two paragraphs show that Political Economics confounds these two kinds of property deliberately—something which the first edition already said in the passage which became the first paragraph. One can see that it is deliberate because they confound the

33. Modern Theory of Colonization

two kinds of property only if it benefits the class interests of the capitalists. ↓ In fully developed capitalism, in which private property of the second kind is firmly entrenched, political economists try to erase the difference between the two kinds of property. They pretend that the capitalist system is based on private property of the *first* kind and they are silent about the second kind.

In Western Europe, the home of Political Economy, the process of original accumulation is more or less accomplished. Here the capitalist regime has either directly conquered the whole domain of national production, or, where economic conditions are less developed, it, at least, indirectly controls those strata of society which, though belonging to the antiquated mode of production, continue to exist side by side with it in gradual decay. To this completed world of capital, the political economist applies the notions of law and property inherited from a pre-capitalistic world with all the more anxious zeal and all the greater unctiousness, the more loudly the facts cry out against this ideology.

792:2 Im Westen von Europa, dem Heimaltsland der politischen Ökonomie, ist der Prozeß der ursprünglichen Akkumulation mehr oder minder vollbracht. Das kapitalistische Regiment hat hier entweder die ganze nationale Produktion sich direkt unterworfen, oder, wo die Verhältnisse noch unentwickelter, kontrolliert es wenigstens indirekt die neben ihm fortexistierenden, verkommenen, der veralteten Produktionsweise angehörigen Gesellschaftsschichten. Auf diese fertige Welt des Kapitals wendet der politische Ökonom mit desto ängstlicherem Eifer und desto größerer Salbung die Rechts- und Eigentumsvorstellungen der vorkapitalistischen Welt an, je lauter die Tatsachen seiner Ideologie ins Gesicht schreien.

↑ The more clearly the facts say that it is private property of the second kind, the more “anxious zeal” and “unctiousness” on the side of the political economists to assert that it is of the first kind.

Question 1315 *Does modern mainstream economics still promote the myth that private property in capitalism is gained by labor?*

↓ In the colonies, the first kind of private property is still an obstacle to the development of capitalism. Therefore the capitalists seek to eliminate it by force. In order to do this, they do *not* confound the two kinds of private property but clearly distinguish them:

It is otherwise in the colonies. There the capitalist regime everywhere comes into collision with the resistance of the producer, who, as owner of his own conditions of labor, employs that labor to enrich himself, instead of the capitalist. The contradiction of these two diametrically opposed economic systems, manifests itself here practically in a struggle between them. Where the capitalist has at his back the power of the mother-country, he tries to clear out of his way by force the modes of production and appropriation based on the independent labor of the producer.

792:3/o Anders in den Kolonien. Das kapitalistische Regiment stößt dort überall auf das Hindernis des Produzenten, welcher als Besitzer seiner eignen Arbeitsbedingungen sich selbst durch seine Arbeit bereichert statt den Kapitalisten. Der Widerspruch dieser zwei diametral entgegengesetzten ökonomischen Systeme betätigt sich hier praktisch in ihrem Kampf. Wo der Kapitalist die Macht des Mutterlandes im Rücken hat, sucht er die auf eigener Arbeit beruhende Produktions- und Aneignungsweise gewaltsam aus dem Weg zu räumen.

↑ The clause “when the capitalist has at his back the power of the mother country” excludes the USA. ↓ Political Economy reveals itself as the sycophants of capital by dropping

their former confusion and telling the truth because here it supports the violent efforts to do away with private property of the first kind.

The same interest, which compels the sycophant of capital, the political economist, in the mother-country, to proclaim the theoretical identity of the capitalist mode of production with its contrary, that same interest compels him in the colonies to make a clean breast of it, and to proclaim aloud the antagonism of the two modes of production. To this end, he shows how the development of the social productive power of labor, co-operation, division of labor, use of machinery on a large scale, etc., are impossible without the expropriation of the laborers, and the corresponding transformation of their means of production into capital. In the interest of the so-called national wealth, he seeks for artificial means to ensure the poverty of the people. His apologetic armor is crumbling off, bit by bit, like rotten touchwood.

Dasselbe Interesse, welches den Sykophanten des Kapitals, den politischen Ökonomen, im Mutterland bestimmt, die kapitalistische Produktionsweise theoretisch für ihr eignes Gegenteil zu erklären, dasselbe Interesse treibt ihn hier „to make a clean breast of it“ und den Gegensatz beider Produktionsweisen laut zu proklamieren. Zu diesem Behuf weist er nach, wie die Entwicklung der gesellschaftlichen Produktivkraft der Arbeit, Kooperation, Arbeitsteilung, Anwendung der Maschinerie im großen usw. unmöglich sind ohne die Expropriation der Arbeiter und die entsprechende Verwandlung ihrer Produktionsmittel in Kapital. Im Interesse des sog. Nationalreichtums sucht er nach Kunstmitteln zur Herstellung der Volksarmut. Sein apologetischer Panzer zerbröckelt hier Stück für Stück wie mürber Zunder.

↑ Here is one of the inversions Marx was so fond of: they promote the poverty of the people in the interest of national wealth. ↓ Wakefield is one of those political economists. Under the pretext of developing a theory of colonization, his 1833 book *England and America* [Wak33] blurts out some truths about capitalism.

It is the great merit of E. G. Wakefield to have discovered, not anything new about the Colonies,²⁵⁴ but to have discovered in the Colonies the truth as to the conditions of capitalist production in the mother country.

793:1 Es ist das große Verdienst E. G. Wakefields, nicht irgend etwas Neues über die Kolonien,²⁵⁴ aber in den Kolonien die Wahrheit über die kapitalistischen Verhältnisse des Mutterlands entdeckt zu haben.

↑ Marx uses the word “merit” here ironically. ↓ The footnote clarifies that Wakefield says very little about the colonies themselves that is new.

²⁵⁴ Wakefield’s few glimpses on the subject of Modern Colonization are fully anticipated by Mirabeau père, the physiocrat, and even much earlier by English economists.

²⁵⁴ Die wenigen Lichtblicke Wakefields über das Wesen der Kolonien selbst sind vollständig antizipiert durch Mirabeau père, den Physiokraten, und noch viel früher durch englische Ökonomen.

Question 1316 *In which respects does Marx agree, and in which respects does he disagree with Wakefield’s theories?*

↓ Marx compares Wakefield’s policy recommendations with protectionism:

As the system of protection at its origin²⁵⁵ attempted to manufacture capitalists artificially in the mother-country, so Wakefield’s colonization theory, which England tried for a time to enforce by Acts of Parliament, at-

Wie das Protektionssystem in seinen Ursprüngen²⁵⁵ die Fabrikation von Kapitalisten im Mutterland, so erstrebt Wakefields Kolonisationstheorie, welche England eine Zeitlang gesetzlich ins Werk zu setzen such-

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tempted to effect the manufacture of wage-workers in the colonies. This he calls “systematic colonization”.

↓ In the footnote, Marx distinguishes two purposes of protectionism: as a tool to artificially foster capitalism or as a tool to temporarily protect budding capitalism from the ravages of competition:

²⁵⁵ Later, it became a temporary necessity in the international competitive struggle. But, whatever its motive, the consequences remain the same.

te, die Fabrikation von Lohnarbeitern in den Kolonien. Das nennt er „systematic colonization“ (systematische Kolonisation).

²⁵⁵ Es wird später eine temporäre Notwendigkeit im internationalen Konkurrenzkampf. Welches aber immer sein Motiv, die Folgen bleiben dieselben.

Question 1317 *In what sense is Wakefield’s theory of colonization parallel to the system of protection in its original function as a means of original accumulation?*

Although Wakefield does not say anything new about colonies, he blurts out the truth about capitalism. Wakefield’s insights into the general principles of capitalism are called here “discoveries,” presumably because of their analogy to the discovery of the colonies themselves. Wakefield’s discoveries are not “of” the colonies but “in” the colonies. Just as the discovery of the New World deserves the name “discovery” only from the point of view of the Europeans, Wakefield’s insights into the working of colonies deserves the name “discovery” only from the point of view of a profession which deliberately does not try to see the same principles active in their own countries where they are blatantly obvious. Marx’s polemics here, as in many other places, is directed against the *denial* by the political economists. The colonial setting allowed them to puncture their denial.

↓ First discovery of Wakefield about capitalism: capital is not an object but a relation of production.

First of all, Wakefield discovered in the colonies that the property of means of consumption, machines, and other means of production, does not as yet stamp a person as a capitalist if the complement is wanting—the wage-worker, the other person, who is compelled to sell himself of his own free-will.

793:2/o Zunächst entdeckte Wakefield in den Kolonien, daß das Eigentum an Geld, Lebensmitteln, Maschinen und andren Produktionsmitteln einen Menschen noch nicht zum Kapitalisten stempelt, wenn die Ergänzung fehlt, der Lohnarbeiter, der andre Mensch, der sich selbst freiwillig zu verkaufen gezwungen ist.

Both capitalists and wage-workers are called “persons” ↑ in preparation of Marx’s punch-line ↓ that capital is not a thing but a social relation.

Wakefield discovered that capital is not a thing, but a social relation between persons, mediated by things.²⁵⁶

Er entdeckte, daß das Kapital nicht eine Sache ist, sondern ein durch Sachen vermitteltes gesellschaftliches Verhältnis zwischen Personen.²⁵⁶

²⁵⁶ “A negro is a negro. In certain circumstances he becomes a slave. A mule is a machine for spinning cotton. Only under certain circumstances does it become capital. Outside these circumstances, it is no more capital than gold is intrinsically money, or sugar is the price of sugar. . . Capital is a social relation of production. It is a historical relation of production.” (Karl Marx, “Lohnarbeit und Kapital,” *N. Rh. Z.*, No. 266,

²⁵⁶ „Ein Neger ist ein Neger. In bestimmten Verhältnissen wird er erst zum Sklaven. Eine Baumwollspinnmaschine ist eine Maschine zum Baumwollspinnen. Nur in bestimmten Verhältnissen wird sie zu Kapital. Aus diesen Verhältnissen herausgerissen, ist sie so wenig Kapital, wie Gold an und für sich Geld oder der Zucker der Zuckerpreis ist . . . Das Kapital ist ein gesellschaftliches Produktionsverhältnis. Es ist ein

April 7, 1849.)

historisches Produktionsverhältnis.“ (Karl Marx, „Lohnarbeit und Kapital“, „N[eue] Rh[einische] Z[ei]tung“, Nr. 266 vom 7. April 1849.)

↓ Here is how this discovery is formulated in Wakefield's works:

Mr. Peel, he moans, took with him from England to Swan River, West Australia, means of subsistence and of production to the amount of £50,000. Mr. Peel had the foresight to bring with him, besides, 3,000 persons of the working-class, men, women, and children. Once arrived at his destination, “Mr. Peel was left without a servant to make his bed or fetch him water from the river.”²⁵⁷ Unhappy Mr. Peel who provided for everything except the export of English modes of production to Swan River!

Herr Peel, jammert er uns vor, nahm Lebensmittel und Produktionsmittel zum Be-
lauf von 50.000 Pfd.St. aus England nach
dem Swan River, Neuholland, mit. Herr
Peel war so vorsichtig, außerdem 3.000 Per-
sonen der arbeitenden Klasse, Männer, Wei-
ber und Kinder mitzubringen. Einmal am
Bestimmungsort angelangt, „blieb Herr
Peel, ohne einen Diener, sein Bett zu ma-
chen oder ihm Wasser aus dem Fluß zu
schöpfen“²⁵⁷. Unglücklicher Herr Peel, der
alles vorsah, nur nicht den Export der eng-
lischen Produktionsverhältnisse nach dem
Swan River!

²⁵⁷ E. G. Wakefield: “England and America”,
vol. ii. p. 33.

²⁵⁷ E. G. Wakefield, „England and America“,
v. II, p. 33.

↓ Before Marx can tell us Wakefield's additional “discoveries,” some clarification about Wakefield's terminology are necessary, i.e., about the category errors crystallized in his language:

For the understanding of the following discoveries of Wakefield, two preliminary remarks: We know that the means of production and subsistence, while they remain the property of the immediate producer, are not capital. They become capital only under circumstances in which they serve at the same time as means of exploitation and subjection of the laborer. But in the head of the political economist, this capitalist soul of theirs is so intimately wedded to their material substance, that the political economist christens them capital under all circumstances, even when they are its exact opposite. Thus is it with Wakefield. Further: the splitting up of the means of production into the individual property of many independent laborers, working on their own account, he calls equal division of capital. It is with the political economist as with the feudal jurist. The latter stuck on to pure monetary relations the labels supplied by feudal law.

794:1–2 Zum Verständnis der folgenden Entdeckungen Wakefields zwei Vorbemerkungen. Man weiß: Produktions- und Lebensmittel, als Eigentum des unmittelbaren Produzenten, sind kein Kapital. Sie werden Kapital nur unter Bedingungen, worin sie zugleich als Exploitations- und Beherrschungsmittel des Arbeiters dienen. Diese ihre kapitalistische Seele ist aber im Kopfe des politischen Ökonomen so innig mit ihrer stofflichen Substanz vermählt, daß er sie unter allen Umständen Kapital tauft, auch wo sie das grade Gegenteil sind. So bei Wakefield. Ferner: die Zersplitterung der Produktionsmittel als individuelles Eigentum vieler voneinander unabhängigen, selbstwirtschaftenden Arbeiter nennt er gleiche Teilung des Kapitals. Es geht dem politischen Ökonomen wie dem feudalen Juristen. Letzterer klebte auch auf reine Geldverhältnisse seine feudalen Rechtsetiketten.

Question 1318 Which mistakes have found entry into Wakefield's language?

33. Modern Theory of Colonization

After clearing up the terminology, Marx recounts now the different steps of Wakefield's arguments. ↓ If workers own their means of production, capitalism is impossible.

"If," says Wakefield, "all members of the society are supposed to possess equal portions of capital . . . no man would have a motive for accumulating more capital than he could use with his own hands. This is to some extent the case in new American settlements, where a passion for owning land prevents the existence of a class of laborers for hire."²⁵⁸

²⁵⁸ l.c., p. 17.

Marx rephrases this as: there is no class of wage-laborers.

So long, therefore, as the laborer can accumulate for himself—and this he can do so long as he remains possessor of his means of production—capitalist accumulation and the capitalistic mode of production are impossible. The class of wage-laborers, essential to these, is wanting.

Now Wakefield looks to Europe in order to see how the working class was created there, and he comes up with the following preposterous theory: the owners of capital and the owners of labor separated themselves by a voluntary contract.

How, then, in old Europe, was the expropriation of the laborer from his conditions of labor, i.e., the co-existence of capital and wage-labor, brought about? By a social contract of a quite original kind.

"Mankind have adopted a . . . simple contrivance for promoting the accumulation of capital," which, of course, since the time of Adam, floated in their imagination as the sole and final end of their existence: "they have divided themselves into owners of capital and owners of labor . . . The division was the result of concert and combination."²⁵⁹

²⁵⁹ l.c., vol. i, p. 18.

↓ To show the absurdity of this theory, Marx reasons: if such a social contract happened in Europe then one should expect that it would also happen in the colonies.

In one word: the mass of mankind expropriated itself in honor of the "accumulation of capital." Now, one would think that this instinct of self-denying fanaticism would give itself full fling especially in the colonies, where alone exist the men and conditions that could turn a social contract

„Wäre“, sagt Wakefield, „das Kapital unter alle Mitglieder der Gesellschaft in gleiche Portionen verteilt, so hätte kein Mensch ein Interesse, mehr Kapital zu akkumulieren, als er mit seinen eignen Händen anwenden kann. Dies ist in gewissem Grad der Fall in neuen amerikanischen Kolonien, wo die Leidenschaft für Grundeigentum die Existenz einer Klasse von Lohnarbeitern verhindert.“²⁵⁸

²⁵⁸ l.c., v. I, p. 17.

794:3–795:1 Solange also der Arbeiter für sich selbst akkumulieren kann, und das kann er, solange er Eigentümer seiner Produktionsmittel bleibt, ist die kapitalistische Akkumulation und die kapitalistische Produktionsweise unmöglich. Die dazu unentbehrliche Klasse der Lohnarbeiter fehlt.

Wie wurde nun im alten Europa die Expropriation des Arbeiters von seinen Arbeitsbedingungen, daher Kapital und Lohnarbeit, hergestellt? Durch einen contrat social ganz origineller Art.

„Die Menschheit . . . adoptierte eine einfache Methode zur Förderung der Akkumulation des Kapitals“, die ihr natürlich seit Adams Zeiten als letzter und einziger Zweck ihres Daseins vorschwebte; „sie teilte sich in Eigner von Kapital und Eigner von Arbeit . . . diese Teilung war das Resultat freiwilliger Verständigung und Kombination.“²⁵⁹

²⁵⁹ l.c. p. 18.

795:2–3 Mit einem Wort: die Masse der Menschheit exproprierte sich selbst zu Ehren der „Akkumulation des Kapitals“. Nun sollte man glauben, der Instinkt dieses selbstentsagenden Fanatismus müsse sich namentlich in Kolonien den Zügel frei schießen lassen, wo allein Menschen und

from a dream to a reality. But why, then, should “systematic colonization” be called in to replace its opposite, spontaneous, unregulated colonization?

Umstände existieren, welche einen contrat social aus dem Traumreich in das der Wirklichkeit übersetzen könnten. Aber wozu dann überhaupt die „systematische Kolonisation“ im Gegensatz zur naturwüchsigen Kolonisation?

⇓ Such a contract cannot have happened, since there are hardly any wage laborers in the colonies:

But—but—

“In the Northern States of the American Union; it may be doubted whether so many as a tenth of the people would fall under the description of hired laborers ... In England ... the laboring class compose the bulk of the people.”²⁶⁰

²⁶⁰ l.c., pp. 42, 43, 44.

Aber, aber:

„in den nördlichen Staaten der amerikanischen Union ist es zweifelhaft, ob ein Zehntel der Bevölkerung der Kategorie der Lohnarbeiter angehört ... In England ... besteht die große Volksmasse aus Lohnarbeitern.“²⁶⁰

²⁶⁰ l.c. p. 42, 43, 44.

Therefore, even Wakefield admits that slavery is the only spontaneous basis of wage labor in the colonies. Due to this inconsistency within Wakefield’s theory, this theory cannot be right. (Marx is using immanent critique throughout this chapter.)

Nay, the impulse to self-expropriation on the part of laboring humanity for the glory of capital, exists so little that slavery, according to Wakefield himself, is the sole natural basis of colonial wealth. His systematic colonization is a mere *pis aller*, since he unfortunately has to do with free men, not with slaves.

795:4–5 Ja, der Selbstexpropriationstrieb der arbeitenden Menschheit zu Ehren des Kapitals existiert so wenig, daß Sklaverei, selbst nach Wakefield, die einzige naturwüchsige Grundlage des Kolonialreichtums ist. Seine systematische Kolonisation ist ein bloßes *pis aller*, da er nun einmal mit Freien statt mit Sklaven zu tun hat.

“Pis aller” can be translated as “second-best solution.”

“The first Spanish settlers in Saint Domingo did not obtain laborers from Spain. But, without laborers, their capital must have perished, or at least, must soon have been diminished to that small amount which each individual could employ with his own hands. This has actually occurred in the last Colony founded by England—the Swan River Settlement—where a great mass of capital, of seeds, implements, and cattle, has perished for want of laborers to use it, and where no settler has preserved much more capital than he can employ with his own hands.”²⁶¹

²⁶¹ l.c., vol.ii, p.5.

„Die ersten spanischen Ansiedler in Santo Domingo erhielten keine Arbeiter aus Spanien. Aber ohne Arbeiter“ (d.h. ohne Sklaverei) „wäre des Kapital kaputt gegangen oder wenigstens auf die kleinen Massen zusammengeschrunpft, worin jedes Individuum es mit seinen eignen Händen anwenden kann. Dies fand wirklich statt in der letzten von den Engländern gegründeten Kolonie, wo ein großes Kapital in Samen, Vieh und Instrumenten unterging am Mangel von Lohnarbeitern und wo kein Ansiedler viel mehr Kapital besitzt, als er mit seinen eignen Händen anwenden kann.“²⁶¹

²⁶¹ l.c., v. II, p. 5.

⇓ Interesting remark about the contradictory character of the colonies: the same thing that made colonies so important also made it difficult for capitalism to establish itself there, namely, the fact that the land is public property that can be annexed by settlers.

We have seen that the expropriation of the mass of the people from the soil forms

795:6–796:1 Man sah: die Expropriation der Volksmasse von Grund und Boden bil-

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the basis of the capitalist mode of production. The essence of a free colony, on the contrary, consists in this—that the bulk of the soil is still public property, and every settler on it therefore can turn part of it into his private property and individual means of production, without hindering the later settlers in the same operation.²⁶²

²⁶² “Land, to be an element of colonization, must not only be waste, but it must be public property, liable to be converted into private property.” (I.c., Vol. II, p. 125.)

↑ Marx does not mention here that the land was not empty. he seems to follow the mainstream line that the indigenous population in these colonies did not exist. ↓ From the free availability of land follows that colonies are not conducive to capitalism:

This is the secret both of the prosperity of the colonies and of their inveterate vice—their resistance to the establishment of capital.

“Where land is very cheap and all men are free, where every one who so pleases can easily obtain a piece of land for himself, not only is labor very dear, as respects the laborer’s share of the produce, but the difficulty is to obtain combined labor at any price.”²⁶³

↑ Note the word “combined.” This is a mode of production in which “combined” labor is impossible. Marx will say something about this in .

²⁶³ I.c., Vol. I, p. 247.

↓ Interestingly, Marx connects the separation of agriculture from industry with the separation of the laborer from the conditions of labor:

As in the colonies the separation of the laborer from the conditions of labor and their root, the soil, does not exist, or only sporadically, or on too limited a scale, so neither does the separation of agriculture from industry exist, nor the destruction of the household industry of the peasantry. Whence then is to come the internal market for capital?

“No part of the population of America is exclusively agricultural, excepting slaves and their employers who combine capital and labor in particular works. Free Americans, who cultivate the soil, follow many other occupations. Some portion of the furniture and

det die Grundlage der kapitalistischen Produktionsweise. Das Wesen einer freien Kolonie besteht umgekehrt darin, daß die Masse des Bodens noch Volkseigentum ist und jeder Ansiedler daher einen Teil davon in sein Privateigentum und individuelles Produktionsmittel verwandeln kann, ohne den späteren Ansiedler an derselben Operation zu verhindern.²⁶²

²⁶² „Land, um Element der Kolonisation zu werden, muß nicht nur unangebaut sein, sondern öffentliches Eigentum, welches in Privateigentum verwandelt werden kann.“ (I.c., v. II, p. 125.)

Dies ist das Geheimnis sowohl der Blüte der Kolonien als ihres Krebschadens—ihres Widerstands wider die Ansiedlung des Kapitals.

„Wo Land sehr wohlfeil ist und alle Menschen frei sind, wo jeder nach Wunsch ein Stück Land für sich selbst erhalten kann, ist Arbeit nicht nur sehr teuer, was den Anteil des Arbeiters an seinem Produkt angeht, sondern die Schwierigkeit ist, kombinierte Arbeit zu irgendeinem Preis zu erhalten.“²⁶³

²⁶³ I.c., v. I, p. 247.

796:2–4 Da in den Kolonien die Scheidung des Arbeiters von den Arbeitsbedingungen und ihrer Wurzel, dem Grund und Boden, noch nicht existiert oder nur sporadisch oder auf zu beschränktem Spielraum, existiert auch noch nicht die Losscheidung der Agrikultur von der Industrie, noch nicht die Vernichtung der ländlich häuslichen Industrie, und wo soll da der innere Markt für das Kapital herkommen?

„Kein Teil der Bevölkerung Amerikas ist ausschließlich agrikol, mit Ausnahme der Sklaven und ihrer Anwender, die Kapital und Arbeit für große Werke kombinieren. Freie Amerikaner, die den Boden selbst bauen, treiben zugleich viele andre Beschäftigungen. Ein

tools which they use is commonly made by themselves. They frequently build their own houses, and carry to market, at whatever distance, the produce of their own industry. They are spinners and weavers; they make soap and candles, as well as, in many cases, shoes and clothes for their own use. In America the cultivation of land is often the secondary pursuit of a blacksmith, a miller or a shopkeeper.”²⁶⁴

²⁶⁴ l.c., pp.21, 22.

With such queer people as these, where is the “field of abstinence” for the capitalists?

By “field of abstinence” Marx apparently means their propensity to enter the above social contract, in which workers voluntarily forego their interest for the good of the whole.

That is why one does not find enough workers, the production of the relative surplus-population needed by capitalism (see part VII) does not work.

755:7/o The great beauty of capitalist production consists in this—that it not only constantly reproduces the wage-worker as wage-worker, but produces always, in production to the accumulation of capital, a relative surplus-population of wage-workers. Thus the law of supply and demand of labor is kept in the right rut, the oscillation of wages is penned within limits satisfactory to capitalist exploitation, and lastly, the social dependence of the laborer on the capitalist, that indispensable requisite, is secured; an unmistakable relation of dependence, which the smug political economist, at home, in the mother-country, can transmogrify into one of free contract between buyer and seller, between equally independent owners of commodities, the owner of the commodity capital and the owner of the commodity labor.

The reality in the colonies shows that there is no such voluntary contract:

But in the colonies, this pretty fancy is torn asunder. The absolute population here increases much more quickly than in the mother-country, because many laborers enter this world as ready-made adults, and yet the labor-market is always understocked. The law of supply and demand of labor falls to pieces. On the one hand, the old world constantly throws in capital, thirsting after exploitation and “abstinence”; on

Teil der von ihnen gebrauchten Möbel und Werkzeuge wird gewöhnlich von ihnen selbst gemacht. Sie bauen häufig ihre eignen Häuser und bringen das Produkt ihrer eignen Industrie zu noch so fernem Markt. Sie sind Spinner und Weber, sie fabrizieren Seife und Kerzen, Schuhe und Kleider für ihren eignen Gebrauch. In Amerika bildet der Landbau oft das Nebengeschäft eines Grobschmieds, Müllers oder Krämers.“²⁶⁴

²⁶⁴ l.c. p. 21, 22.

Wo bleibt unter solchen Käuzen das „Entsagungsfeld“ für den Kapitalisten?

By “field of abstinence” Marx apparently means their propensity to enter the above social contract, in which workers voluntarily forego their interest for the good of the whole.

That is why one does not find enough workers, the production of the relative surplus-population needed by capitalism (see part VII) does not work.

796:5/o Die große Schönheit der kapitalistischen Produktion besteht darin, daß sie nicht nur beständig den Lohnarbeiter als Lohnarbeiter reproduziert, sondern im Verhältnis zur Akkumulation des Kapitals stets eine relative Übervölkerung von Lohnarbeitern produziert. So wird das Gesetz von Arbeitsnachfrage und Zufuhr in richtigem Gleis gehalten, die Lohnschwankung innerhalb der kapitalistischen Exploitation zusagende Schranken gebannt und endlich die so unentbehrliche soziale Abhängigkeit des Arbeiters vom Kapitalisten verbürgt, ein absolutes Abhängigkeitsverhältnis, das der politische Ökonom zu Haus, im Mutterland, breimäulig umlügen kann in ein freies Kontraktverhältnis von Käufer und Verkäufer, von gleich unabhängigen Warenbesitzern, Besitzern der Ware Kapital und der Ware Arbeit.

The reality in the colonies shows that there is no such voluntary contract:

Aber in den Kolonien reißt der schöne Wahn entzwei. Die absolute Bevölkerung wächst hier viel rascher als im Mutterland, indem viele Arbeiter erwachsen auf die Welt kommen, und dennoch ist der Arbeitsmarkt stets untermoll. Das Gesetz der Arbeitsnachfrage und Zufuhr gerät in die Brüche. Einerseits wirft die alte Welt fortwährend exploitationslustiges, entsagungsbedürftiges Kapital ein; andererseits stößt die regelmäßige Re-

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the other, the regular reproduction of the wage-laborer as wage-laborer comes into collision with impediments the most impertinent and in part invincible. What becomes of the production of wage-laborers, super-numerary in proportion to the accumulation of capital? The wage-laborer of today is tomorrow an independent peasant, or artisan, working for himself. He vanishes from the labor market, but not into the workhouse. This constant transformation of the wage laborers into independent producers, who work for themselves instead of for capital, and enrich themselves instead of the capitalist gentry, reacts in its turn very perversely on the conditions of the labor-market. Not only does the degree of exploitation of the wage-laborer remain indecently low. The wage-laborer loses into the bargain, along with the relation of dependence, also the sentiment of dependence on the abstemious capitalist. Hence all the inconveniences that our E. G. Wakefield pictures so doughtily, so eloquently, so pathetically.

The supply of wage-labor, he complains, is neither constant, nor regular, nor sufficient. "The supply of labor is always not only small but uncertain."²⁶⁵

"Though the produce divided between the capitalist and the laborer be large, the laborer takes so great a share that he soon becomes a capitalist . . . Few, even those whose lives are unusually long, can accumulate great masses of wealth."²⁶⁶

²⁶⁵ I.c., Vol. II, p. 116.

²⁶⁶ I.c., Vol. I, p. 131.

The laborers most distinctly decline to allow the capitalist to abstain from the payment of the greater part of their labor. It avails him nothing, is he so cunning as to import from Europe, with his own capital, his own wage-workers.

They soon "cease . . . to be laborers for hire; they . . . become independent landowners, if not competitors with their former masters in the labor-market."²⁶⁷

²⁶⁷ I.c., Vol. II, p. 5.

produktion der Lohnarbeiter als Lohnarbeiter auf die unartigsten und teilweise unüberwindliche Hindernisse. Und nun gar die Produktion von überzähligen Lohnarbeitern im Verhältnis zur Akkumulation des Kapitals! Der Lohnarbeiter von heute wird morgen unabhängiger, selbstwirtschaftender Bauer oder Handwerker. Er verschwindet vom Arbeitsmarkt, aber—nicht ins Workhouse. Diese beständige Verwandlung der Lohnarbeiter in unabhängige Produzenten, die statt für das Kapital, für sich selbst arbeiten, und statt den Herrn Kapitalisten sich selbst bereichern, wirkt ihrerseits durchaus schadhaft auf die Zustände des Arbeitsmarkts zurück. Nicht nur bleibt der Exploitationsgrad des Lohnarbeiters unanständig niedrig. Der letztere verliert obendrein mit dem Abhängigkeitsverhältnis auch das Abhängigkeitsgefühl vom entsagenden Kapitalisten. Daher alle Mißstände, die unser E. G. Wakefield so brav, so beredt und so rührend schildert.

797:1–2 Die Zufuhr von Lohnarbeit, klagt er, ist weder beständig noch regelmäßig, noch genügend. Sie „ist stets nicht nur zu klein, sondern unsicher“²⁶⁵.

„Obgleich das zwischen Arbeiter und Kapitalist zu teilende Produkt groß ist, nimmt der Arbeiter einen so großen Teil, daß er rasch ein Kapitalist wird . . . Dagegen können wenige, selbst wenn sie ungewöhnlich lang leben, große Reichtumsmassen akkumulieren.“²⁶⁶

²⁶⁵ I.c., v. II, p. 116.

²⁶⁶ I.c., v. I, p. 131

797:3–4 Die Arbeiter erlauben den Kapitalisten platterdings nicht, auf Zahlung des größten Teils ihrer Arbeit zu entsagen. Es hilft ihm nichts, wenn er so schlau ist, mit seinem eignen Kapital auch seine eignen Lohnarbeiter aus Europa zu importieren.

„Sie hören bald auf, Lohnarbeiter zu sein, sie verwandeln sich bald in unabhängige Bauern oder gar in Konkurrenten ihrer alten Meister auf dem Lohnarbeitsmarkt selbst.“²⁶⁷

²⁶⁷ I.c., v. II, p. 5.

Think of the horror! The excellent capitalist has imported bodily from Europe, with his own good money, his own competitors! The end of the world has come! No wonder Wakefield laments the absence of all dependence and of all sentiment of dependence on the part of the wage-workers in the colonies. On account of the high wages, says his disciple, Merivale, there is in the colonies “the urgent desire for cheaper and more subservient laborers—for a class to whom the capitalist might dictate terms, instead of being dictated to by them . . . In ancient civilized countries the laborer, though free, is by a law of Nature dependent on capitalists; in colonies this dependence must be created by artificial means.”²⁶⁸

²⁶⁸ Merivale, I.c., Vol. II, pp. 235–314 passim. Even the mild, Free-trade, vulgar economist, Molinari, says: “Dans les colonies où l’esclavage a été aboli sans que le travail forcé se trouvait remplacé par une quantité équivalente de travail libre, on a vu s’opérer la contre-partie du fait qui se réalise tous les jours sous nos yeux. On a vu les simples travailleurs exploiter à leur tour les entrepreneurs d’industrie, exiger d’eux des salaires hors de toute proportion avec la part légitime qui leur revenait dans le produit. Les planteurs, ne pouvant obtenir de leurs sucres un prix suffisant pour couvrir la hausse de salaire, ont été obligés de fournir l’excédant, d’abord sur leurs profits, ensuite sur leurs capitaux mêmes. Une foule de planteurs ont été ruinés de la sorte, d’autres ont fermé leurs ateliers pour échapper à une ruine imminente . . . Sans doute, il vaut mieux voir périr des accumulations de capitaux que des générations d’hommes [how generous Mr. Molinari!]; mais ne vaudrait-il pas mieux que ni les uns ni les autres périssent? (Molinari, I.c., pp. 51, 52.) Mr. Molinari, Mr. Molinari! What then becomes of the ten commandments, of Moses and the prophets, of the law of supply and demand, if in Europe the “entrepreneur” can cut down the laborer’s legitimate part, and in the West Indies, the laborer can cut down the entrepreneur’s? And what, if you please, is this “legitimate part”, which on your own showing the capitalist in Europe daily neglects to pay? Over

798:1 Man begreife den Greuel! Der brave Kapitalist hat seine eignen leibhaftigen Konkurrenten selbst aus Europa für sein eigenes gutes Geld importiert! Da hört denn doch alles auf! Kein Wunder, wenn Wakefield klagt über mangelndes Abhängigkeitsverhältnis und Abhängigkeitsgefühl der Lohnarbeiter in den Kolonien. Wegen der hohen Löhne, sagt sein Schüler Merivale, existiert in den Kolonien der leidenschaftliche Drang nach wohlfeilerer und unterwürfigerer Arbeit, nach einer Klasse, welcher der Kapitalist die Bedingungen diktieren kann, statt sie von ihr diktiert zu erhalten . . . In altzivilisierten Ländern ist der Arbeiter, obgleich frei, naturgesetzlich abhängig vom Kapitalisten, in Kolonien muß diese Abhängigkeit durch künstliche Mittel geschaffen werden.²⁶⁸

²⁶⁸ Merivale, I. c., v. II, p. 235–314 passim. Selbst der sanfte, freihändlerische Vulgärökonom Molinari sagt: „In den Kolonien, in denen die Sklaverei abgeschafft worden ist, ohne daß man die Zwangsarbeit durch eine entsprechende Menge freier Arbeit ersetzt hätte, sah man das Gegenteil von dem sich abspielen, was sich täglich vor unseren Augen zuträgt. Man sah die einfachen Arbeiter ihrerseits die industriellen Unternehmer ausbeuten, indem sie Löhne von ihnen forderten, die in gar keinem Verhältnis stehen zu dem rechtmäßigen Anteil, der ihnen am Produkt zukäme. Da die Pflanzer außerstande waren, für ihren Zucker einen ausreichenden Preis zu erhalten, um die Steigerung der Löhne decken zu können, waren sie genötigt, den Mehrbetrag zunächst aus ihren Profiten, darauf aus ihren Kapitalien selbst zu decken. Eine Menge Pflanzer wurde so ruiniert, während andere ihre Betriebe schlossen, um dem bevorstehenden Ruin zu entgehen . . . Es ist zweifellos besser, Anhäufungen von Kapitalien zugrunde gehen zu sehen, als Generationen von Menschen“ (wie generös von dem Herrn Molinari!); „aber wäre es nicht besser, wenn weder die einen noch die anderen zugrunde gingen?“ (Molinari, I.c. p. 51, 52.) Herr Molinari, Herr Molinari! Was wird denn aus den zehn Geboten, aus Moses und den Propheten, aus dem Gesetz der Nachfrage und Zufuhr, wenn in Europa der „entrepreneur“ dem Arbeiter und in Westindien der Arbeiter dem

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yonder, in the colonies where the laborers are so "simple" as to "exploit" the capitalist, Mr. Molinari feels a strong itching to set the law of supply and demand, that works elsewhere automatically, on the right road by means of the police.

entrepreneur seine part légitime verkürzen kann! Und was ist gefälligst diese „part légitime“, die nach Ihrem Geständnis der Kapitalist in Europa täglich nicht zahlt? Den Herrn Molinari juckt es gewaltig, dort drüben, in den Kolonien, wo die Arbeiter so „simpl“ sind, den Kapitalisten zu „exploitieren“, das sonst automatisch wirkende Gesetz der Nachfrage und Zufuhr polizeilich in den richtigen Gang zu setzen.

The phrase "Moses and the prophets" had also been used in 591:2–5.

Therefore, no combined labor and no long term projects possible. On the other hand, a higher standard of living for the people.

What is now, according to Wakefield, the consequence of this unfortunate state of things in the colonies? A "barbarising tendency of dispersion" of producers and national wealth.²⁶⁹ The parcelling-out of the means of production among innumerable owners, working on their own account, annihilates, along with the centralization of capital, all the foundation of combined labor. Every long-winded undertaking, extending over several years and demanding outlay of fixed capital, is prevented from being carried out. In Europe, capital invests without hesitating a moment, for the working-class constitutes its living appurtenance, always in excess, always at disposal. But in the colonies! Wakefield tells an extremely doleful anecdote. He was talking with some capitalists of Canada and the state of New York, where the immigrant wave often becomes stagnant and deposits a sediment of "supernumerary" laborers.

798:2–799:1 Was ist nun, nach Wakefield, die Folge dieses Mißstands in den Kolonien? Ein „barbarisches System der Zerstreuung“ der Produzenten und des Nationalvermögens.²⁶⁹ Die Zersplitterung der Produktionsmittel unter unzählige, selbstwirtschaftende Eigentümer vernichtet mit der Zentralisation des Kapitals alle Grundlage kombinierter Arbeit. Jedes langatmige Unternehmen, das sich über Jahre erstreckt und Auslage von fixem Kapital erheischt, stößt auf Hindernisse der Ausführung. In Europa zögert das Kapital keinen Augenblick, denn die Arbeiterklasse bildet sein lebendiges Zubehör, stets im Überfluß da, stets zur Verfügung. Aber in den Kolonialländern! Wakefield erzählt eine äußerst schmerzreiche Anekdote. Er unterhielt sich mit einigen Kapitalisten von Kanada und dem Staat New York, wo zudem die Einwanderungswogen oft stocken und einen Bodensatz „überzähliger“ Arbeiter niederschlagen.

"Our capital," says one of the characters in the melodrama, "was ready for many operations which require a considerable period of time for their completion; but we could not begin such operations with labor which, we knew, would soon leave us. If we had been sure of retraining the labor of such emigrants, we should have been glad to have engaged it at once, and for a high price: and we should have engaged it, even though we had been sure it would leave us, provided we had been sure of a fresh supply whenever we might need it."²⁷⁰

„Unser Kapital“, seufzt eine der Personen des Melodramas, „unser Kapital lag bereit für viele Operationen, die eine beträchtliche Zeitperiode zu ihrer Vollendung brauchen; aber konnten wir solche Operationen beginnen mit Arbeitern, welche, wir wußten es, uns bald den Rücken wenden würden? Wären wir sicher gewesen, die Arbeit solcher Einwanderer festhalten zu können, wir hätten sie mit Freude sofort engagiert und zu hohem Preis. Ja, trotz der Sicherheit ihres Verlustes würden wir sie dennoch engagiert haben, wären wir einer frischen Zufuhr je nach unsrem Bedürfnis sicher gewesen.“²⁷⁰

²⁶⁹ Wakefield, I.c., Vol.II, p.52.

²⁷⁰ I.c., pp.191, 192.

After Wakefield has constructed the English capitalist agriculture and its “combined” labor with the scattered cultivation of American peasants, he unwittingly gives us a glimpse at the reverse of the medal. He depicts the mass of the American people as well-to-do, independent, enterprising, and comparatively cultured, whilst

“the English agricultural laborer is miserable wretch, a pauper ... In what country, except North America and some new colonies, do the wages of free labor employed in agriculture much exceed a bare subsistence for the laborer? ... Undoubtedly, farm-horses in England, being a valuable property, are better fed than English peasants.”²⁷¹

²⁷¹ I.c., Vol.I, p.47, 246.

But, never mind, national wealth is, once again, by its very nature, identical with misery of the people.

Wakefield’s recipe to remedy this “inveterate vice” which was already mentioned in ?

How, then, to heal the anti-capitalistic inveterate vice of the colonies? If men were willing, at a blow, to turn all the soil from public into private property, they would destroy certainly the root of the evil, but also—the colonies.

Wakefield’s remedy destroys the colonies, i.e., it voids the reasons why the workers flock to the colonies.

The trick is how to kill two birds with one stone. Let the Government put upon the virgin soil an artificial price, independent of the law of supply and demand, a price that compels the immigrant to work a long time for wages before he can earn enough money to buy land, and turn himself into an independent peasant.²⁷² The fund resulting from the sale of land at a price relatively prohibitory for the wage-workers, this fund of money extorted from the wages of labor by violation of the sacred law of supply and demand, the Government is to employ, on the other hand, in proportion as it grows, to

²⁶⁹ Wakefield, I.c., v. II, p. 52.

²⁷⁰ I.c. p. 191, 192.

799:2–3 Nachdem Wakefield die englische kapitalistische Agrikultur und ihre „kombinierte“ Arbeit prunkvoll kontrastiert hat mit der zerstreuten amerikanischen Bauernwirtschaft, entschlüpft ihm auch die Kehrseite der Medaille. Er schildert die amerikanische Volksmasse als wohlhabend, unabhängig, unternehmend und relativ gebildet, während

„der englische Agrikulturarbeiter ein elender Lump (a miserable wretch) ist, ein Pauper ... In welchem Land außer Nordamerika und einigen neuen Kolonien übersteigen die Löhne der auf dem Land angewandten freien Arbeit nennenswert die unentbehrlichsten Subsistenzmittel des Arbeiters? ... Zweifelsohne, Ackerpferde in England, da sie ein wertvolles Eigentum sind, werden viel besser genährt als der englische Landbebauer.“²⁷¹

²⁷¹ I.c., v. I, p. 47, 246.

799:4 Aber never mind, Nationalreichtum ist nun einmal von Natur identisch mit Volkseleid.

Wakefield’s recipe to remedy this “inveterate vice” which was already mentioned in ?

799:5/o Wie nun den antikapitalistischen Krebschaden der Kolonien heilen? Wollte man allen Grund und Boden mit einem Schlag aus Volkseigentum in Privateigentum verwandeln, so zerstörte man zwar die Wurzel des Übels, aber auch—die Kolonie.

Die Kunst ist, zwei Fliegen mit einer Klappe zu schlagen. Man gebe von Regierungen wegen der jungfräulichen Erde einen vom Gesetz der Nachfrage und Zufuhr unabhängigen, einen künstlichen Preis, welcher den Einwanderer zwingt, längere Zeit zu Lohnarbeiten, bis er genug Geld verdienen kann, um Grund und Boden zu kaufen²⁷² und sich in einen unabhängigen Bauern zu verwandeln. Den Fonds, der aus dem Verkauf der Ländereien zu einem für den Lohnarbeiter relativ prohibitorischen Preis fließt, also diesen aus dem Arbeitslohn durch Verletzung des heiligen Gesetzes von Nachfrage und

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import have-nothings from Europe into the colonies, and thus keep the wage-labor market full for the capitalists. Under these circumstances, tout sera pour le mieux dans le meilleur des mondes possibles. This is the great secret of “systematic colonization.”

²⁷² “C’est, ajoutez-vous, grâce à l’appropriation du sol et des capitaux que l’homme, qui n’a que ses bras, trouve de l’occupation et se fait un revenu ... c’est au contraire, grâce à l’appropriation individuelle du sol qu’il se trouve des hommes n’ayant que leurs bras ... Quand vous mettez un homme dans le vide, vous vous emparez de l’atmosphère. Ainsi faites-vous, quand vous vous emparez du sol... C’est le mettre dans le vide de richesses, pour ne la laisser vivre qu’à votre volonté.”

“By this plan,” Wakefield cries in triumph, “the supply of labor *must* be constant and regular, because, first, as no laborer would be able to procure land until he had worked for money, all immigrant laborers, working for a time for wages and in combination, would produce capital for the employment of more laborers; secondly, because every laborer who left off working for wages and became a landowner would, by purchasing land, provide a fund for bringing fresh labor to the colony.”²⁷³

²⁷³ Wakefield, I.c., Vol.II, p.192.

The price of the soil imposed by the State must, of course, be a “sufficient price”—*i.e.*, so high “as to prevent the laborers from becoming independent landowners until others had followed to take their place.”²⁷⁴ This “sufficient price for the land” is nothing but a euphemistic circumlocution for the ransom which the laborer pays to the capitalist for leave to retire from the wage-labor market to the land. First, he must create for the capitalist “capital,” with which the latter may be able to exploit more laborers; then

Zufuhr erpreßten Geldfonds, verwende die Regierung andererseits, um im selben Maß, wie er wächst, Habenichtse aus Europa in die Kolonien zu importieren und so dem Herrn Kapitalisten seinen Lohnarbeitsmarkt vollzuhalten. Unter diesen Umständen tout sera pour le mieux dans le meilleur des mondes possibles. Dies ist das große Geheimnis der „systematischen Kolonisation“.

²⁷² „Es sei, fügt ihr hinzu, der Aneignung des Bodens und der Kapitalien zu verdanken, daß der Mensch, der nur seine Arme besitzt, Beschäftigung findet und sich ein Einkommen schafft ... es kommt im Gegenteil gerade von der individuellen Aneignung des Bodens, daß es Menschen gibt, die nur ihre Arme besitzen ... Wenn ihr einen Menschen in den luftleeren Raum versetzt, raubt ihr ihm die Luft. So handelt ihr auch, wenn ihr euch des Bodens bemächtigt ... Das heißt, ihn in die alles Reichtums bare Leere versetzen, damit er nicht anders als nach eurem Willen leben kann.“ (Colins, I.c., t. III, p. 267–271 *passim*.)

800:1 „Nach diesem Plan“, ruft Wakefield triumphierend aus, „muß die Zufuhr von Arbeit konstant und regelmäßig sein; denn erstens, da kein Arbeiter fähig ist, sich Land zu verschaffen, bevor er für Geld gearbeitet hat, würden alle einwandernden Arbeiter dadurch, daß sie für Lohn kombiniert arbeiten, ihrem Anwender Kapital zur Anwendung von mehr Arbeit produzieren; zweitens jeder, der die Lohnarbeit an den Nagel hinge und Grundeigner würde, würde grade durch den Ankauf des Landes einen Fonds zur Herüberbringung frischer Arbeit nach den Kolonien sichern.“²⁷³

²⁷³ Wakefield, I.c., v. II, p. 192.

800:2/o Der von Staats wegen oktroyierte Bodenpreis muß natürlich „genügend“ (sufficient price) sein, d.h. so hoch, „daß er die Arbeiter verhindert, unabhängige Bauern zu werden, bis andre da sind, um ihren Platz auf dem Lohnarbeitsmarkt einzunehmen“²⁷⁴. Dieser „genügende Bodenpreis“ ist nichts als eine euphemistische Umschreibung des Lösegelds, welches der Arbeiter dem Kapitalisten zahlt für die Erlaubnis, sich vom Lohnarbeitsmarkt aufs Land zurückzuziehn. Erst muß er dem Herrn

he must place, at his own expense, a *locum tenens* on the labor-market, whom the Government forwards across the sea for the benefit of his old master, the capitalist.

²⁷⁴ l.c., p.45.

Wakefield's recipe failed. Interesting comparison with Robert Peel's Bank Act. But over time, the spontaneous development of capitalism had the same effect as Wakefield's policies.

It is very characteristic that the English Government for years practised this method of "original accumulation" prescribed by Mr. Wakefield expressly for the use of the colonies. The fiasco was, of course, as complete as that of Sir Robert Peel's Bank Act. The stream of emigration was only diverted from the English colonies to the United States. Meanwhile, the advance of capitalistic production in Europe, accompanied by increasing Government pressure, has rendered Wakefield's recipe superfluous. On the one hand, the enormous and ceaseless stream of men, year after year driven upon America, leaves behind a stationary sediment in the east of the United States, the wave of immigration from Europe throwing men on the labor-market there more rapidly than the wave of emigration westwards can wash them away. On the other hand, the American Civil War brought in its train a colossal national debt, and, with it, pressure of taxes, the rise of the vilest financial aristocracy, the squandering of a huge part of the public land on speculative companies for the exploitation of railways, mines, etc., in brief, the most rapid centralization of capital. The great republic has, therefore, ceased to be the promised land for emigrant laborers. Capitalistic production advances there with giant strides, even though the lowering of wages and the dependence of the wage-worker are yet far from being brought down to the normal European level. The shameless lavishing of uncultivated colonial land on aristocrats and capitalists by the Government, so loudly denounced even by Wakefield, has produced, especially in

Kapitalisten „Kapital“ schaffen, damit er mehr Arbeiter ausbeuten könne, und dann auf dem Arbeitsmarkt einen „Ersatzmann“ stellen, den die Regierung auf seine Kosten seinem ehemaligen Herrn Kapitalisten über die See spedit.

²⁷⁴ l.c. p. 45.

801:1/o Es ist höchst charakteristisch, daß die englische Regierung diese von Herrn Wakefield eigens zum Gebrauch in Kolonialländern verschriebene Methode der „ursprünglichen Akkumulation“ jahrelang ausgeführt hat. Das Fiasko war natürlich ebenso schmächtig als das des Peelschen Bankakts. Der Emigrationsstrom wurde nur von den englischen Kolonien nach den Vereinigten Staaten abgelenkt. Unterdes hat der Fortschritt der kapitalistischen Produktion in Europa, begleitet von wachsendem Regierungsdruck, Wakefields Rezept überflüssig gemacht. Einerseits läßt der ungeheure und kontinuierliche Menschenstrom, jahraus, jahrein nach Amerika getrieben, stockende Niederschläge im Osten der Vereinigten Staaten zurück, indem die Emigrationswelle von Europa die Menschen rascher dorthin auf den Arbeitsmarkt wirft, als die Emigrationswelle nach dem Westen sie abspülen kann. Andererseits hat der Amerikanische Bürgerkrieg eine kolossale Nationalschuld in seinem Gefolge gehabt und mit ihr Steuerdruck, Erzeugung der allerge-meinsten Finanzaristokratie, Verschwendung eines ungeheuren Teils der öffentlichen Ländereien an Spekulanten-Gesellschaften zur Ausbeutung von Eisenbahnen, Bergwerken etc.—kurz die rascheste Zentralisation des Kapitals. Die große Republik hat also aufgehört, das gelobte Land für auswandernde Arbeiter zu sein. Die kapitalistische Produktion geht dort mit Riesenschritten voran, wenn auch Lohnsenkung und Abhängigkeit des Lohnarbeiters noch lange nicht auf das europäische Normalniveau heruntergebracht sind. Die von Wake-

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Australia²⁷⁵, in conjunction with the stream of men that the gold-diggings attract, and with the competition that the importation of English commodities causes even to the smallest artisan, an ample “relative surplus laboring population,” so that almost every mail brings the Job’s news of a “glut of the Australia labor-market,” and the prostitution in some places flourishes as wantonly as in the London Haymarket.

field selbst so laut denunzierte, schamlose Verschleuderung des unbebauten Kolonialbodens an Aristokraten und Kapitalisten seitens der englischen Regierung hat namentlich in Australien²⁷⁵, zusammen mit dem Menschenstrom, den die Gold-Diggings hinziehn, und der Konkurrenz, welche der Import englischer Waren selbst dem kleinsten Handwerker macht, eine hinreichende „relative Arbeiterübevölkerung“ erzeugt, so daß fast jedes Postdampfschiff die Hiobspost einer Überfüllung des australischen Arbeitsmarktes—„glut of the Australian labour-market“—bringt, und die Prostitution dort stellenweis so üppig gedeiht wie auf dem Haymarket von London.

Question 1319 *Why did Wakefield’s Systematic Colonization not work? By which other processes was capitalism in fact introduced in the colonies?*

²⁷⁵ As soon as Australia became her own law-giver, she passed, of course, laws favorable to the settlers, but the squandering of the land, already accomplished by the English Government, stands in the way. “The first and main object at which new Land Act of 1862 aims is to give increased facilities for the settlement of the people.” (“The Land Law of Victoria,” by the Hon. C. G. Duffy, Minister of Public Lands, Lond., 1862.)

However, we are not concerned here with the conditions of the colonies. The only thing that interests us is the secret discovered in the new world by the Political Economy of the old world, and proclaimed on the housetops: that the capitalist mode of production and accumulation, and therefore capitalist private property, have for their fundamental condition the annihilation of self-earned private property; in other words, the expropriation of the laborer.

Marx’s vision of “possession in common of the Earth” in tries to overcome social antagonisms while maintaining the artificial separation between dead natural resources and living human beings. Marx is not aware that another negation of a negation is necessary here: from primitive humans belonging to the Earth to human attempts to instrumentalizing the Earth to humans finding their place as Gaia’s brain. The labor process not only has to be socialized but also has to be re-integrated into the web of biospherical interactions of all living beings.

²⁷⁵ Sobald Australien sein eigener Gesetzgeber wurde, erließ es natürlich den Ansiedlern günstige Gesetze, aber die englische, einmal vollzogene Bodenverschleuderung steht im Wege. „Das erste und wichtigste Ziel, welches das neue Landgesetz von 1862 erstrebt, besteht darin, größere Erleichterungen für die Ansiedlung des Volkes zu schaffen.“ („The Land Law of Victoria, by the Hon. G. Duffy, Minister of Public Lands“, Lond. 1862, [p. 3].)

802:1 Jedoch beschäftigt uns hier nicht der Zustand der Kolonien. Was uns allein interessiert, ist das in der neuen Welt von der politischen Ökonomie der alten Welt entdeckte und laut proklamierte Geheimnis: kapitalistische Produktions- und Akkumulationsweise, also auch kapitalistisches Privateigentum, bedingen die Vernichtung des auf eigener Arbeit beruhenden Privateigentums, d.h. die Expropriation des Arbeiters.

A. Marx's Preface to "A Contribution to the Critique of Political Economy"

Marx's Preface to *A Contribution to the Critique of Political Economy* contains a famous passage formulating the basic principles of *historical materialism*. The following sentence-by-sentence discussion draws on the most diligent and most widely accepted scrutiny and interpretation of the Preface available, that in G. A. Cohen's book [Coh80].

In the social production of their lives, people enter into determinate relations that are necessary and independent of their wills—relations of production, which correspond to a determinate stage of development of their material productive powers.

In der gesellschaftlichen Produktion ihres Lebens gehen die Menschen bestimmte, notwendige, von ihrem Willen unabhängige Verhältnisse ein, Produktionsverhältnisse, die einer bestimmten Entwicklungsstufe ihrer materiellen Produktivkräfte entsprechen.

Instead of "productive forces" we translate "*Produktivkräfte*" as "productive powers," following a

recommendation in [Coh80, p. 37:3]. [The76, p. 355] says that the German "*Produktivkräfte*" was

originally Marx's translations of Smith's and Ricardo's "productive powers."

The two concepts introduced in this sentence, "productive powers" and "relations of production," are basic tools for a scientific understanding of history. Their short definition is: the productive powers are the state of technology, while the relations of production denote the interpersonal relations of the producers in the production process (sometimes called the "relations in production") as well as the wider web of social relations and institutions determining who produces what and who gets to consume it.

The main *productive powers* are the means of production and labor-power. Cohen gives the following useful elaboration of these two concepts (I am writing "productive [power]" where Cohen uses the more common expression "productive force"):

Means of production are physical productive resources: tools, machinery, raw materials, premises and so forth. Labor-power includes not only the strength of producers, but also their skills, and the technical knowledge (which they need not understand) they apply when laboring. Marx says, and I agree, that this subjective dimension of the productive [powers] is more important than the objective or means of production dimension. [Coh83, p. 12:1]

Note that labor *power*, not labor itself, is a productive power.

The *relations of production* are the system of social relations and institutions which determine the following questions (a)–(h) (which are inspired by [GS87, pp. 5–6]):

- (a) Is the labor necessary to society's physical survival distributed equally, or are some individuals required to work more and consume less than others, and if so, who are those?

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- (b) Which incentives or necessities induce people to work? Do they produce for themselves the goods they need in order to survive? Are they coerced on pain of death or punishment to produce things consumed by someone else? Are they ordered by their masters to work? Do they work for someone who owns the means of production they work with because they need money to satisfy their survival needs? Do they work because they like to? Do they co-operate with others because they enjoy the synergy and want to have an impact in improving the lives for themselves and others?
- (c) How is their work organized? Do they themselves decide, individually or in groups, their speed and methods of work? Is this imposed on them by a master or manager?
- (d) If the workers do not own and control the means of production (the land, tools, equipment machines and buildings) with the aid of which work is carried out, who does, and which rights do these owners have?
- (e) What is the determining force—the purpose—underlying production? Do the individual workers decide to produce in order to survive? Does society have institutions which direct the production processes necessary for collective survival? Or do some people establish a production process with the objective of enriching themselves?
- (f) If some people in the society do not work, who are they and how do they receive enough food and other goods to survive? This incorporates many other questions. Are there particular castes into which people are born which do not require them to work? Is there a sexual division of labor which requires one sex to work more than the other? Is there a class of people who manage to receive an income without working?
- (g) How much variation is there between different groups' and individuals' standards of living and levels of income? And how are these differences determined?
- (h) What is the mechanism by which society's product is transferred from those who produce it to those who are entitled to receive it?

Question 1320 *Is the determining force—or purpose—of capitalist production the market demand, or is it the profit motive?*

Question 1321 *Answer the above Questions (a)–(h) for capitalist society. 2003fa, 1998WI, 1997ut, 1997WI, 1996ut, 1996sp.*

Cohen, by contrast, has a more simplistic view of relations of production: He considers the relations of production to be relations of ownership and (effective) control: who owns whom or what. He constructs table A.1, which characterizes different relations of production by different patterns of the ownership of labor-power and the means of production.

Question 1322 *Show that all other possible patterns not listed in in Table A.1 are either mixtures of those listed or are inconsistent.*

Table A.1 gives a basic and also exhaustive (see Question 1322) classification. But it takes a too narrow view of relations of production. Relations of production cannot be adequately described by: “I own this and you own that.” For instance, the equality of labor cannot be captured this way, although it lies at the root of commodity relations. Cohen's perspective is severely hampered by his identification of social with interpersonal relations and, related

What the producer owns	his labor power	means of production he uses
slave	none	none
serf	some	some
wage laborer	all	none
independent producer	all	all

Table A.1.: Cohen's Schema of Relations of Production

with this, his failure to distinguish surface and core of the economy. He only looks at the surface relations and not at the economic deep structure underneath. By identifying the relations of production with property relations, he depicts them as something which can be legislated—and consequently he cannot crisply define the difference between relations of production and legal relations.

Exam Question 1323 *Define productive powers and relations of production.* 2002fa, 1997ut, 1997sp, 1995WI.

After these clarifications of the concepts *productive powers* and *relations of production*, let us discuss the first sentence word for word. The beginning of the sentence notes that life has to be produced socially.

In this social production of their lives, people must take part in relations of production. The English text says here “enter” into relations of production, but the German “*eingehen*” connotes *being in* the relationship as much as the act of entering it.

Marx gives three attributes to these relations of production: they are determinate, necessary, and independent of people's wills.

In the German, the three attributes: (1) determinate, (2) necessary, (3) independent of their will are given in parallel. In English, such a

parallel construction cannot be given in front of “relations,” but one would have to say: relations which are determinate, necessary,

and independent of their will. This sounds awkward. The translation given above is a compromise.

Question 1325 *Carefully explain to what extent the relations of production are determinate, necessary, and independent of people's wills.* 2003fa, 1999SP, 1997ut, 1997WI, 1996ut, 1995WI.

Question 1326 *Marx says that the relations of production are independent of people's wills. Does he mean by this, they are independent of the will of anyone in society, or does he mean, they are independent of the wills of the majority of the people, for instance capitalism being determined by a small minority of capitalists?* 2003fa, 2002fa.

The word “determinate” means that the relations of production are not invented arbitrarily or the result of historic accidents, but have a specific character, which can be explained independently of the details of history. How is this character determined if not through history? A prime candidate, the wills and preferences of the members of society, is ruled out: we do not have capitalism because the capitalists want us to have capitalism. Of course, most capitalists like it that we have capitalism and they promote capitalism, but they did

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not invent it; it so-to-say fell into their lap. What determines that we have capitalism now and not for instance feudalism or a slave society? The third attribute, the necessity of the relations of production (namely, their necessity for the production of people's lives), is a hint where this answer must be found: in material production.

Historical materialism holds that there is a strong link between relations of production and productive powers. However, this link is not very direct. Marx writes that the relations of production "correspond" to a determinate stage of development of the productive powers.

First of all, this implies that the productive powers *develop*. What does this mean? It is a tendency, i.e., Marx would not deny that there are historical phases in which productive powers regress. Marx would probably also not deny that skills can in certain cases be lost, but over time, mankind acquires the ability to produce more and more and better and better.

Now what is meant by the word "correspond"? In English, this word has at least two different meanings. Sometimes it denotes a *symmetric* relationship. Cohen [Coh80, p. 137] gives as example: "goals in soccer correspond to runs in baseball." But often it is also used in an unidirectional way. Cohen's example here is "nervous breakdowns correspond to an increase in the pressures of life." Cohen [Coh80, p. 136] argues convincingly that the meaning of "corresponds" in the above passage is unidirectional.

Question 1327 *Marx writes in the Preface that the relations of production "correspond" to the stage of development of the material productive powers. Try to bring as many arguments as possible in favor of the thesis that the word "correspond" is used here in a unidirectional sense. (Some such arguments are given in [?, p. 137:3].)*

Unfortunately, Cohen does not know of any unidirectional relationship which might apply here other than a *functional* one. He interprets the above passage to mean that production relations are "appropriate" to the productive powers, "and we may impute to [Marx] the further thought that the relations are as they are *because* they are appropriate to productive development" [Coh80, p. 136].

I favor a different interpretation, according to which economic relations have their own dynamic, but they thrive better in one technological environment than in another, and they may be entirely incompatible with still other technologies. This does not mean that they can be explained by or derived from the technology. Just as the ecological characteristics of mountain streams are not sufficient to derive the trouts living in them.

Now let us go on:

The totality of these relations of production constitutes the economic structure of society, the real basis, on which rises a legal and political superstructure, ...

Die Gesamtheit dieser Produktionsverhältnisse bildet die ökonomische Struktur der Gesellschaft, die reale Basis, worauf sich ein juristischer und politischer Überbau erhebt, ...

Question 1328 *Are the productive powers part of the "economic structure" as defined here? 2003fa.*

According to this definition, the productive powers are not part of the economic basis, since they are not relations of production. This contradicts many Marxist interpretations; in [Coh80, fn. 2 on p. 29], Cohen gives an impressive list of 11 citations, with page numbers, from 9 different authors, who all "take for granted that productive [powers] belong to the

economic structure” (sic in [Coh83, fn. 9 on p. 14]). How could a patently wrong assertion become so common?

Cohen’s meticulous work is helpful here. Cohen shows that the same word “basis” is commonly used in two related yet subtly different meanings, which he distinguishes as basis₁ and basis₂: *x* is basis₁ of *y* if *x* is that part of *y* on which (the rest of) *y* rests. *x* is basis₂ of *y* if *x* is external to *y* and is that on which (the whole of) *y* rests. [Coh80, p. 30]

People confuse the two types of basis, and since they see that productive powers have explanatory primacy for the economic structure, they infer that they must be part of the economic basis.

Marx uses the metaphor that the legal and political superstructure is “built” or “rests” on this basis. The forms of consciousness however are merely said to “correspond” to the basis: ... and to which correspond determinate social forms of consciousness.

... und welcher bestimmte gesellschaftliche Bewußtseinsformen entsprechen.

I translated it as “social forms of consciousness,” since the

alternative “forms of social consciousness” seems less likely.

Not only do the relations in which people find themselves preexist the individuals and leave the individuals little choice, but in addition the individuals may never even experience that they have no choice, because their consciousness is shaped by the social relations in which they find themselves. This point will be made once more, more emphatically, in the second sentence after this.

The next two sentences summarize and clarify what has been said so far. From what was said so far one might get the impression that there is a continuous flow of determination in which those social structures closer to material production determine those that are further away from production. Instead of a continuous measure of closeness to production, Marx separates the social relations into discrete categories. He introduces here the concept of “mode of production,” which combines both productive powers and relations of production. It is an identifiable subset of natural and social mechanisms which “conditions” other social relations, which are classified as “social,” “political,” and “intellectual.”

The mode of the material production of life conditions the social, political and intellectual life process in general.

Die Produktionsweise des materiellen Lebens bedingt den sozialen, politischen und geistigen Lebensprozeß überhaupt.

With the translation “the mode of the material production of life” (instead of the more literal “mode of production of material life”) I am leaning on the First Edition of Capital, 46:2/o: *Es ist dies eine*

naturwüchsige und daher bewußtlos instinktive Operation ihres Hirns, die aus der besonderen Weise ihrer materiellen Produktion und den Verhältnissen, worin diese Produktion sie versetzt, notwendig

herauswächst. Also, the wording “the mode of production of material life conditions the social, ...” makes one think that the life conditions are produced.

The word “conditions” implies both restraining and enabling functions.

The next sentence is a clarification as well. It elaborates once more, a little more forcefully, on the theme “independent of their wills”:

It is not the consciousness of men that determines their being, but, on the contrary, it is their social being that determines their consciousness.

Es ist nicht das Bewußtsein der Menschen, das ihr Sein, sondern umgekehrt ihr gesellschaftliches Sein, das ihr Bewußtsein bestimmt.

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“Being” is a better translation than “existence.” Existence is their

immediate material existence; their social being (i.e., it is a

Dasein) is emergent from it.

This concludes Marx’s description of the structure of society. Marx distinguishes between the “economic base” (i.e., the totality of the social relations of production), the legal and political “superstructure,” and the “social forms of consciousness.” This social structure is not determined by people’s wills. It is “conditioned” (which is different from “determined” and leaves room for *relative autonomy*) by the mode of production, by the way people produce the material things they need to live.

Question 1331 *Are there social relations which neither belong to the basis nor to the superstructure?*

Next, Marx traces the historical development of the ensemble whose structure he just laid out. Marx assumes that productive powers (especially science useful for production) inexorably develop, and that relations of production are in the long run unable to constrain this development.

At a certain stage of their development, the material productive powers of society come into contradiction with the existing relations of production or—which is merely a legal expression for it—with the property relations within the framework of which they had operated hitherto.

Auf einer gewissen Stufe ihrer Entwicklung geraten die materiellen Produktivkräfte der Gesellschaft in Widerspruch mit den vorhandenen Produktionsverhältnissen oder, was nur ein juristischer Ausdruck dafür ist, mit den Eigentumsverhältnissen, innerhalb deren sie sich bisher bewegt hatten.

The property relations are the legal formalization of the relations of production, and therefore they are the arena in which the material productive powers can come to a clash with the social relations of production. First, the mutually beneficial relationship between productive powers and relations of production ceases and reverses itself. This is already a contradiction, but the contradiction does not yet exist as a contradiction. Later, this contradiction breaks out in an open conflict:

Question 1332 *Give an example of a situation in which productive powers and relations of production are in contradiction.* 2003fa, 1998WI.

From forms of development of the productive powers these relations turn into their fetters. Then begins an era of social revolution.

Aus Entwicklungsformen der Produktivkräfte schlagen diese Verhältnisse in Fesseln derselben um. Es tritt dann eine Epoche sozialer Revolution ein.

Question 1333 *Are there signs nowadays that the capitalist social relations are fetters for the development of productivity? If so, give examples.* 1997ut, 1997WI, 1995WI.

The sentence which follows next implies that this conflict is resolved in favor of the productive powers. Why not in favor of the relations of production, which often generate strong conservative forces? Because of the *class struggle*, which undermines the mechanisms by which the relations of production reproduce themselves. Marx does not use the word “class struggle” here, instead he speaks of an “epoch of social revolution.” Robert Brenner, the main antagonist of Cohen’s technological determinism, makes a convincing point in [Bre89,

p. 287/8] that in feudalism people were very reluctant to give up their production for subsistence. Class struggles were necessary to hurl them into the larger and much less controllable social context of having to produce for the market.

Question 1334 *How does the passage from the Preface which we just discussed relate to the famous assertion in the Communist Manifesto that “the history of all hitherto existing society is the history of class struggles”?* 1996sp.

With the change of the economic foundation, the entire immense superstructure transforms itself more or less rapidly.

Mit der Veränderung der ökonomischen Grundlage wälzt sich der ganze ungeheure Überbau langsamer oder rascher um.

What is here translated with “transform” is in German “*umwälzen*,” a gradual but thorough rolling over. This word can also be used as a euphemism for “revolution.” This same word will be used three more times in the following passage. It has a very special connotation: first the relations in production are changed, then the superstructure which rests on it is overturned piece by piece, presumably because it no longer finds its prerequisites and reinforcement in the altered base.

In studying such transformations, a distinction should always be made between the material transformation of the economic conditions of production, which can be ascertained with the precision of natural science, and the legal, political, religious, artistic or philosophic—in short, ideological forms in which people become conscious of this conflict and fight it out.

In der Betrachtung solcher Umwälzungen muß man stets unterscheiden zwischen der materiellen, naturwissenschaftlich treu zu konstatierenden Umwälzung in den ökonomischen Produktionsbedingungen und den juristischen, politischen, religiösen, künstlerischen oder philosophischen, kurz, ideologischen Formen, worin sich die Menschen dieses Konflikts bewußt werden und ihn ausfechten.

The transformation of the material conditions of production is slow but inexorable and irreversible. It is the result of countless technological innovations. Once the productive powers are no longer in synch with the relations of production, struggles erupt which may be wildly gyrating and have reversals.

The next passage is a critique of Hegel’s theory of history, which sees history as driven by growing human self-awareness. Marx argues that in such times of turmoil, self-consciousness is less reliable than usual:

Just as one does not judge individuals by what they fancy themselves to be, so one cannot judge such a period of transformation by its own consciousness; one must rather explain this consciousness from the contradictions of material life, from the conflict between the present social productive powers and relations of production.

Sowenig man das, was ein Individuum ist, nach dem beurteilt, was es sich selbst dünkt, ebensowenig kann man eine solche Umwälzungsepoche aus ihrem Bewußtsein beurteilen, sondern muß vielmehr dies Bewußtsein aus den Widersprüchen des materiellen Lebens, aus dem vorhandenen Konflikt zwischen gesellschaftlichen Produktivkräften und Produktionsverhältnissen erklären.

After discussing the process of change, Marx now briefly characterizes the results of such change.

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No social formation ever perishes before all the productive powers have developed which it can accommodate; . . .

Eine Gesellschaftsformation geht nie unter, bevor alle Produktivkräfte entwickelt sind, für die sie weit genug ist, . . .

The MECW translation
“sufficient” introduces a

functionalist slant not present in
German. Cohen has: for which

there is room in it, which is similar
to “accommodate.”

Cohen says a lot about the meaning of this sentence in [Coh80, pp. 26, 138:4–140:3], which I agree with. It is helpful for understanding this sentence to think “relation of production” instead of “social formation.” Cohen also points to the similarity between this sentence and Hegel’s

The world spirit has had the patience to pass through these [cultural] forms in the long expanse of time, taking upon itself the tremendous labor of world history in which it imparted as much of its content to every form as that form was capable of holding. (Preface to *Phenomenology*, in [Kau65, p. 404])

Marx likewise seems to have thought that a change in relations of production must come at the latest possible time, only after there is no room left for the productive forces to develop further.

Marx must have derived this thesis about the result of the process from his foregoing characterization of the process itself. Perhaps along the following lines: only when the productive powers have developed beyond the point for which there is room in the social formation for non-confrontational development will they start to crack open the social relations. But this destruction of the old may not lead to the formation of something new if not another condition is met:

. . . and new, higher relations of production never replace older ones before the material conditions of their existence have hatched in the womb of the old society itself.

. . . und neue höhere Produktionsverhältnisse treten nie an die Stelle, bevor die materiellen Existenzbedingungen derselben im Schoß der alten Gesellschaft selbst ausgebrütet worden sind.

This last sentence is again similar to another sentence in the Preface to the *Phenomenology*:

Truth appears only when its time has come—and therefore never appears too early, nor ever finds that the public is not ready for it (in [Kau65, p. 456])

Social relations cannot be changed by decree; they must have grown, in which case the public will be ready for them.

Question 1335 Which conditions must be met for a given set of social relations of production to perish and new relations to evolve? 1998WI, 1997ut.

Therefore mankind always sets itself only such tasks that it is able to solve; closer examination will not fail to show that the problem itself arises only when the material conditions for its solution are already present or are at least in the course of formation.

Daher stellt sich die Menschheit immer nur Aufgaben, die sie lösen kann, denn genauer betrachtet wird sich stets finden, daß die Aufgabe selbst nur entspringt, wo die materiellen Bedingungen ihrer Lösung schon vorhanden oder wenigstens im Prozeß ihres Werdens begriffen sind.

Question 1336 *Why does mankind always set itself only such tasks as it is able to solve?* 2003fa, 2002fa.

This is a very optimistic conclusion of Marx's, stemming from his Hegelian predilection for immanent contradictions. Nowadays we are faced with a different scenario: If capitalism stumbles over the ecology—which is not an *immanent* contradiction—then, unlike in the case in which it stumbles over its own development of the productive powers, it has not necessarily created the means of solution along with the problem.

After these generalities about the result of the process, Marx locates the present situation in the historical process:

In broad outline, the Asiatic, ancient, feudal, and modern bourgeois modes of production may be designated as progressive epochs in the economic formation of society. The bourgeois relations of production are the last antagonistic form of the social process of production—antagonistic not in the sense of individual antagonism, but of an antagonism that emanates from the social conditions of individual lives. The productive powers developing in the womb of bourgeois society also create the material conditions for the solution of this antagonism.

In großen Umrissen können asiatische, antike, feudale und modern bürgerliche Produktionsweisen als progressive Epochen der ökonomischen Gesellschaftsformation bezeichnet werden. Die bürgerlichen Produktionsverhältnisse sind die letzte antagonistische Form des gesellschaftlichen Produktionsprozesses, antagonistisch nicht im Sinn von individuellem Antagonismus, sondern eines aus den gesellschaftlichen Lebensbedingungen der Individuen hervorstechenden Antagonismus, aber die im Schoß der bürgerlichen Gesellschaft sich entwickelnden Produktivkräfte schaffen zugleich die materiellen Bedingungen zur Lösung dieses Antagonismus.

The development of the productive powers fostered by capitalism has far-reaching consequences. It not only ushers in a new social order but it is about to change the rules of the game:

This social formation brings, therefore, the prehistory of human society to a close.

Mit dieser Gesellschaftsformation schließt daher die Vorgeschichte der menschlichen Gesellschaft ab.

In the previous passage, Marx said that capitalism was the last social formation in which antagonisms emanated from the social conditions of individual lives. Now he says that it is the last social formation of the “prehistory” of human society. Apparently he calls it “prehistory” because it was riddled with antagonisms blindly emanating from the structure of the social production process. What will the “history” of human society be like? Can we expect that in the future the structure of society will no longer be dictated by the economic base, and individuals will be able to consciously transform the quality of their social relations?

Question 1338 *Why does Marx call capitalism the last social formation of the pre-history of mankind?* 2003fa, 1997ut, 1997sp.

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